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Meaning and Change of Meaning

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GUSTAF STERN

Meaning and Change of Meaning

WITH SPECIAL REFERENCE
TO THE ENGLISH LANGUAGE

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I wish also to acknowledge my great indebtedness to the New English Dictionary, without the help of which a book of this kind cannot be written. All quotations with a date but no reference are taken from the NED, except a few that are quoted from Mätzner's Wörterbuch.

The MS. of my book was completed about two years ago, and I have therefore only occasionally been able to take into consideration literature published later than 1929.

G. S.

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ABBREVIATIONS

NED *A New English Dictionary,* Oxford 1888—1928.
COD *The Concise Oxford Dictionary,* 2nd ed. Oxford 1929.

AF	*Anglo-French*	ME	*Middle English*
E	*English*	MHG	*Middle High German*
F	*French*	OE	*Old English*
G	*German*	OF	*Old French*
L	*Latin*		

ERRATA

P. 32, last line: *expressive signs;* read: *symbols.*
P. 33, line 1: *expression;* read: *symbol.*
P. 33, » 2: *expressed;* read: *symbolized.*
P. 274, note 1: *einen Bock trinken;* read: *eine Bock rauchen.*

Meaning and Change of Meaning

CHAPTER I

INTRODUCTION

1.1. *The Position of Semasiology in Relation to Linguistics and Psychology.* Semasiology is the study of linguistic meanings. The term *meanings* is here taken as denoting certain elements of the mental events occurring in connection with words in the minds of people thinking, speaking, writing, hearing or reading the words. The study of meanings, as of all psychic phenomena, belongs to psychology.

Meanings are accessible to scientific investigation only through the words which serve to express them, and they are linked up with these words in a manner that brings them into the province of linguistics, and makes their study an indispensable complement to the study of speech sounds and forms (cf. 3.25).

Semasiology is thus a typical *Grenzwissenschaft*, a boundary science, drawing material and principles both from linguistics and psychology, and to some extent also from epistemology and logic. In any single investigation, the emphasis may be more on the linguistic side or more on the psychological side of the problem.

The present work is a contribution to the establishing of semasiology as a branch of linguistics. Psychology, and epistemology and logic, are placed under contribution as far as is necessary.

1.2. *Methods of Work.* In an enormous field of work like semasiology, no single method can be the one and only way of salvation, but a number of different methods have to be used, according to the material handled and the end in view. In order to show the position of the present treatise within the whole, I shall mention briefly the principal lines of work.[1])

One distinction has already been mentioned: that between linguistic and psychological points of view. This distinction is crossed by that between descriptive and genetic methods; the two latter often overlap.

The descriptive method may be defined, in general terms, as the making of an inventory of some part of the meanings and means of expression in any one language at a given period. An ordinary dictionary is such an inventory, arranged from the point of view of the word. Its usefulness for purely semantic purposes is limited by the alphabetical arrangement.

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[1]) For details I refer to Grundtvig's bibliography.

Word-lists like Roget's Thesaurus of English Words and Phrases (*Begriffswörterbücher*) represent another type, based on similarity of notional content. A dictionary of synonyms generally shows a blend of alphabetical and notional arrangement.

The referents (see on this term ch. 3) are the basis of research in onomasiology, which investigates the names of objects in one or more languages. The linguistic atlases of France, Germany, and Italy are notable instances.

Yet another type takes as its basis stylistic, morphological, or syntactical peculiarities, and makes a study of, for instance, the metaphors, the analogical formations, or the shortened expressions of a language. Parts II and III of Wellander's Studien zum Bedeutungswandel im Deutschen are an instance, dealing with shortened expressions in Modern German.

Descriptive work on the psychological side will attempt to analyse the psychological (and epistemological) nature of meaning, regarded as static, as well as the nature of the psychic processes involved in the thinking of meanings, in their production and comprehension, *i. e.*, what Paul called *die gewöhnliche Sprechtätigkeit*. The relations between meaning, word, and referent, form another important problem.

Turning to questions of detail, different types of meaning that may be distinguished from a psychological or logical point of view, have to be analysed for their peculiarities: phrase-meanings and word-meanings, basic and relational meanings, and so on (see ch. 4); also the peculiarities characterizing the meanings of metaphors, shortened expressions, etc.

The genetic method can be applied along two different lines. One of them consists in tracing the history of words with regard to changes in the notional content of their meanings — so-called sense-changes. A historical dictionary, like the New English Dictionary, is a collection of such word-histories, arranged in an alphabetical order. Studies of the history of single words or word-groups have been published in relatively large numbers, although the methods made use of are not always the best. This line of genetic research has attracted more attention than the other, owing to its importance for etymology and lexicography. What a semasiologist would wish to see, in this direction, are dictionaries arranged on the principles of Roget's Thesaurus, with statements on the origin of every meaning of each given word. Such a book would form the basis for a thorough study of the semantic history of a language. It would also be of the greatest benefit to etymologists, who would find noted in it information on all developments observed for every meaning, and on the circumstances in which each single sense-change is liable to take place (cf. Grundtvig 8). We are as yet a very long way from the realization of this pium desiderium.

Secondly, the genetic method may be applied to the study of the psychic processes underlying the notional changes of meaning. It is possible to study the notional changes without taking into account the psychic processes through which they arise; but, on the other hand, it is not possible to study these processes without taking up the notional changes, since it is only through their results in the form of such changes that the activity of the psychic processes becomes apparent. Moreover, any thorough scientific study of sense-changes must naturally seek to trace them to their causes, and the two genetic methods are therefore both of them indispensable. In *Swift, Swiftly, and their Synonyms,* I have shown how they may be applied to a group of words. Since the status of any language at any period is a phase in its unceasing development, and the result of the antecedent changes, the genetic method is the key to a real understanding of the semantic phenomena.

Collection and analysis of historical facts form an indispensable basis for a scientific study, but do not alone constitute a science: analysis must be combined with synthesis, a synthesis based on general principles. In the case of language, which shows a development in time, the principles must be genetic. Since language is a product of mental activity, and the study of such activities belongs to psychology, it is in psychology that the principles of semasiology must be sought.

On the other hand, a scientific study must be based on ascertained phenomena, and these are primarily the meanings and changes of meaning that have actually occurred in the course of linguistic development. It follows that an adequate historical linguistic material is an indispensable basis for semasiology.

The adequacy of a theory in explaining the actual events in the semantic history of a language is the most important criterium veri for the theory. There is, however, another test which must not be neglected. Some at least of our mental processes are accessible to experimental and statistical investigation, and the results of this research must be incorporated in the theory, in so far as they touch upon relevant matters. A good instance is the production of "artificial" analogies by Esper, as reported in 9.21.

The aim of the present essay is to establish a theoretically tenable and practically workable system of classification comprising all known types of sense-change. This means that the genetic method must be applied. There must be a linguistic material in the form of word-histories, showing the various types of sense-change, the links in the process of development, and the circumstances which determine each phase. On the theoretical side, it is necessary to analyse in detail the epistemological and psychological nature of meaning, so that the theoretical differences between the various classes of change can be clearly demonstrated. For the same purpose, it is also necessary to analyse the speech process — die gewöhnliche Sprechtätigkeit — both on the emissive and on the receptive side.

The problems involved in the actual application of these principles will be further discussed below.

1.3. *Previous Work.* Systematic semasiology is a comparatively late branch of study. It was only natural that the scientific study of languages, which dates back barely a century, should first turn to speech sounds and forms, as being most easily accessible, taking up problems of meaning only when it was unavoidable. The accumulation of linguistic material in dictionaries and handbooks of all kinds has hitherto mainly been intended to serve the requirements of practical life, phonology, morphology, or syntax, while the needs of semasiology have seldom been taken into consideration as a prime factor. Since an adequate material is the indispensable basis for any science, semasiology has suffered accordingly.

The first attempts to classify the semantic changes had no satisfactory theoretical and material foundation. Moreover, the psychology of that period was not yet ready to cope with the relevant theoretical problems.¹) Practically the only method available was to compare the

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¹) The history of semantic research up to about 1900 is sketched by Jaberg, Pej. Bedeutungsentw. For the last decades I refer to Grundtvig's bibliography.

meanings of a word before and after a change, with regard to their notional content. It was found that, from a logical point of view, the secondary (derived) meaning often represented an extension or a restriction (specialization) of the primary meaning, or else could be otherwise logically related to it. In criticism of this method it is sufficient to say that, as the following discussions will show, the logical point of view is not relevant to the genesis of sense-changes: it can describe the results of a change, but can say little about its nature, conditions, and causes. In addition, there are many sense-changes which cannot be thus classified, and a classification should be exhaustive.

The first writer to make a systematic attempt on a large scale to apply modern psychological principles to the explanation of linguistic phenomena was Wilhelm Wundt, in *Die Sprache* (first published in 1900). In the semantic part, he seeks to classify sense-changes according to the nature of the psychic processes involved in them, or causing them.

It is not my task to give a criticism of Wundt's opinions concerning language (see on this point especially Bühler, Krise 30 sqq.). I shall only remark that Wundt came to the study of language with a ready-made psychological system, based on research in other material (cf. Cassirer, Phil. III 240). He wanted to show that this system was applicable to the linguistic phenomena — and in general to the "social" psychological phenomena — and at the same time he wanted to find in language fresh material in support of the system.

Wundt's work has been much criticized, and sometimes uncritically accepted. It contains numerous inconsistencies and untenable explanations, and its main thesis has long since been abandoned. Experimental psychology was at that time in its infancy, and the progress of the last thirty years has shown up many weak points. A philologist especially notices Wundt's inability to analyse historical linguistic material in a methodical way. One excuse for Wundt in this respect is the circumstance that very little really useful material was available to him.

With these reservations, it is only fair to Wundt to acknowledge that no previous writer, and probably no subsequent writer, has made anything like so substantial a contribution to semantic theory. Wundt's great experience in psychological matters enabled him to give many explanations of permanent value. He has also the great merit of having posed and formulated many problems, and of having greatly intensified the interest in semantic questions, both among psychologists and philologists. His influence has been greatest among the latter, many of whom have regarded his work as the expression of a consensus — in reality non-existent — among psychologists, and even as a final formulation, long after active research on these problems had turned into new channels. *Die Sprache* has had to submit to the fate that sometimes overtakes efforts to establish scientific systems. They summarize the state of knowledge at the time of writing; but research does not rest content with a system, it goes on to find fresh material and to elaborate fresh methods for a more penetrating analysis, and thus inevitably brings to light new facts and factors which wreck the system. Wundt's theory and classification did not acquire any practical importance, and no one has been able to use it for classifying sense-changes.

Wundt's failure seems to have discouraged others from taking the matter up in earnest, for during the last thirty years no one has made public any system of semasiology worthy of serious consideration. Semantic work from 1900 to 1930 has been characterized by an astonishing and highly regrettable lack of contact and collaboration between psychologists and philologists, a circumstance from which both parties, but especially the latter, have suffered greatly. Many philologists writing on semantic theory seem still to be ignorant of the fact that since 1900 new psychological, epistemological, and logical theories and investigations have been published of the greatest importance for the study of meanings; the decisive break with the older doctrines occurred between 1900 and 1910. Although admitting the necessity for borrowing theories and explanations from psychology and logic, these writers content themselves with antiquated doctrines, or with popularized fragments of psychological theories. Others, who are more up-to-date in this respect, speculate endlessly on the theoretical problems without troubling to verify their assertions by applying them to linguistic facts. And I do not think that any one has attempted to utilize systematically the findings of experimental psychology.

The result of this state of things is that, in spite of the fact that there has been of late a not inconsiderable interest in the study of meanings, we have as yet no generally accepted system of fundamental principles on which further research could be based. The principles adopted by Wellander, Falk, Funke, Sperber, Hatzfeld, Weisgerber, Junker, Ipsen, to mention only a few, are irreconcilable on many points of essential importance.

1.4. *Necessity for Systematic Work.* In such circumstances, some writers recommend, as the only safe method of procedure for the present, the restriction of semantic work to problems of detail, until sufficient material shall have been assembled to furnish a satisfactory basis for a synthesis. This is, in my opinion, going from bad to worse. If we study the papers published on the semantic history of single words or groups of words, we are conscious of a serious deficiency in them all. It may be stated as an axiom that we do not get a real grip of any detail if we are not able to place it in its due setting, to fit it into the system to which it belongs, and thus to see it against a background of more comprehensive facts and general principles. Otherwise we cannot know what points of view are fundamental, we cannot know in what direction we should especially try to draw conclusions, and we have only a hazy idea, or no idea at all, whether the peculiarities we notice are confined to this detail, or if they are essential to a larger class, and should therefore be specially emphasized.

The lack of systematic knowledge also makes it difficult or impossible to see where the largest gaps in our knowledge are to be found, and what problems are essential for further progress, and we are thus incapable of directing our work to the portions of the field where it would be most useful.1)

I quite agree with those who assert that much more detailed research is necessary in semasiology: there are large tracts that have as yet scarcely been touched, and no single portion has received a satisfactory treatment in any language. On the other hand, it is equally necessary to try to form some idea of the "lie of the land" as a whole. The work on details cannot be arranged to the greatest advantage if we cannot fit them into a general scheme, and make them support and explain each other by being put into relation to each other and to general principles. As it is, work is sometimes published that is almost useless for general and systematic purposes, simply because the author did not know, and could not know, how to bring out the really

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1) "It may be the part of prudence, but it is not really the part of wisdom, to wait until all the data are accumulated and the evidence all in, before we try to theorize. The only danger in speculation lies in mistaking our formulations for established facts . . . Moreover, and this is the essential point, the real usefulness of theory lies in the fact that it sets specific problems to research and directs attention to aspects and details which would otherwise remain unnoticed" (Laguna 8).

essential features of his material. I believe that this fact is largely responsible for the smallness of the annual output in semasiology. More philologists would take up this interesting work if they could only find a comprehensive theory ready to their hand, and were spared the trouble of constructing one for themselves.

1.5. *Plan of the Work.* The present work is an attempt to establish a theory and a classification of sense-changes on genetic, psychological principles. The plan has been (1) to try to ascertain, as precisely as possible, on the basis of typical and well-authenticated instances, what has really happened to the meanings investigated; (2) to explain, with the help of adequate psychological theories, the conditions, causes, and nature of these changes.

Such an investigation can be expected to show (1) what types of change exist in language, especially in the English language, and (2) how these types are related to each other.

The meanings studied are the basic meanings of single words (cf. 4. 26). I have thus excluded relational meanings, and phrase meanings. Neither of these types has as yet been more than slightly touched by research, and the material for a review of them is almost entirely lacking. I have had to confine myself to describing some of their main characteristics, and showing their relations to basic meaning.

The material of basic meanings at my disposal is somewhat unevenly distributed. Most writers have concentrated on nouns; verbs and adjectives (with adverbs) have also had a share of attention, while pronouns and particles require much additional research. A complete review of the whole field of sense-change will perhaps be possible in two or three generations, on condition that the present rate of work is much increased.

My position is, naturally, that of a philologist, and my work is a contribution to the building up of semasiology as a branch of linguistics. Psychology and epistemology have had to be given a prominent place, especially in the first part of the work, but they are there as *Hilfswissenschaften.* It is the linguistic material in the second part that is the basis of the whole book; the theories are adduced to explain it, and are admitted only in so far as they are useful in this respect and are not contradicted by the material. The real test of any linguistic theory is its confrontation with the facts of language.

My principle throughout is to apply an empirical method, as far as this can be done at present, and the foundations of the work are (1) the linguistic material, which is to show what has happened to the meanings in the course of development, and (2) a system of representative psychological theories for explaining and bringing into systematic order the facts ascertained.

This programme is in the nature of an ideal which can at present be realized only in part. I presume that no one will want to quarrel with the principles; it all turns on their application. Some indications concerning the contents of the following chapters will show what I believe to be the best method of procedure.

Since there is no recognized semantic theory on which a classification of sense-changes could be based, I have been compelled to state, in Part I (chs. 2—6), the principles of which I have made use in the systematic part (Part II, chs. 7—14). I have limited the theoretical statements, as far as possible, to matter that must be referred to later, with as much complementary material as was necessary to make the account a coherent whole. Many problems of great interest have therefore been passed over as not relevant to the present study.

The first great problem for Part I is the definition of meaning.¹) In order to provide an adequate background for the definition it was found necessary to make some preliminary statements concerning two questions. One of them is the functions of speech, which are intimately involved in the definition of meaning, as well as in the whole problem of sense-change. The other question is a general theory of signs. Words are signs, and in order to explain their peculiarities it was necessary to go into the characteristics of signs in general, showing how word-signs differ from other signs. These statements are found in ch. 2.

According to the older view, meaning is a complex of images and emotive elements, associated with a word. This opinion has, however, been totally discarded by modern research, and meaning is instead regarded as a psychic act through which the word (the sign) is referred to that which it denotes (the referent, see 3.13). The factors that go to the creation of this psychic act, as well as the interrelation of these

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¹) We find writers — who claim to be working scientifically — attempting to analyse sense-changes and establish systems of classification without first stating *what* it is that changes, *i. e.*, without first giving an adequate definition of meaning (cf. Stern, Litteris III 49 sqq.). It stands to reason that such a neglect of the most elementary methodical principles can only lead to unreliable results.

factors, have to be analysed. It is especially the relation between word and meaning that requires a detailed discussion, since a number of important problems are connected with it. The discussion of these matters is contained in ch. 3, which ends with a definition of meaning, formulated according to the principles previously established.

Verbal meaning can be analysed with regard to the psychic nature of the elements constituting it, or with regard to its notional content; that is to say, from a psychological or from a logical point of view. In the former case we can distinguish cognitive and emotive elements of meaning; the cognitive being either thoughts or images, central or peripheral elements, and clear or vague elements; and we have to take up the problem of discriminating the meaning of a word from other mental content occurring together with it, which is either the meaning of other words, or is not meaning at all. From a logical point of view we have to establish various distinctions, as for instance between general and particular meaning, between basic and relational meaning, and so forth — the importance of which has not always been sufficiently recognized. These matters are treated in ch. 4.

The second main problem for Part I is the nature of the speech process — what Paul calls *die gewöhnliche Sprechtätigkeit*. It is necessary to analyse the processes involved in thinking (producing or comprehending) the relevant meanings, that is to say in producing and comprehending speech. Our knowledge of these things is as yet far from complete, but the number of investigations is quickly growing and a considerable amount of fresh data is available. Both normal psychology and pathology have contributed, and some of the most important theoretical and experimental work will be briefly summarized. The discussion demonstrates the extreme variability and flexibility of the speech processes, a characteristic that is of essential importance as facilitating the change of meanings. This analysis is contained in chs. 5 and 6.

The systematic part of the book begins with a chapter on the principles of sense-change. On the basis of the theories advanced in Part I, a definition of sense-change is first given, together with remarks on some general problems. The second section of ch. 7 contains a list of the seven main classes of sense-change, with typical instances. I may be allowed to state that I did not arrive at these seven classes by theoretical argumentation. I began by collecting and analysing well-authenticated sense-changes, and I found that they could be arranged in seven classes. The next step was to find out if these seven classes were statistical types only, or if it was possible to arrange them so as to form an organic system that could be deduced from simple basic principles. I found that it was possible if I made use of the definition of meaning given in ch. 3, and the analyses in chs. 4—6. Since I had arrived at the definition on purely theoretical grounds, while the classes of change were established empirically, this correspondence was an encouraging circumstance.

1.6. *The Linguistic Material.* As long as we believe that it is always possible to build up the semantic history of a word on the basis of the bare statement that the word once upon a time had the meaning X, and that at a later time it had the meaning Y — so long will semasiology remain a happy hunting-ground of faddists. If semasiology is to take its due place and position as an independent branch of linguistics, it must be placed on a secure foundation in the shape of a strict method of research.

There are certainly many sense-changes the nature of which can easily be inferred from a knowledge of the primary and the secondary meanings, but these are the very simple cases, and no reliable system was ever built up on very simple cases alone. The complicated cases are the crucial test of a classification (cf. Weisweiler's ironical comments on the "methods" still current in many quarters, St. u. Aufg. 421).

Moreover, such fragmentary evidence cannot help us in finding out the causes and circumstances of the change. That is to say, guesses may be made, and have been copiously made, but there is only one safe and scientific method: to undertake the laborious task of tracing in detail the sense-development of as many words as possible, with the help of chronologically arranged series of instances, taken from the texts of different periods.[1])

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[1]) "Ce qui fait que les études sur le développement du sens des mots, malgré de nombreuses tentatives, n'ont pas encore abouti à une théorie complète, c'est qu'on a voulu deviner les faits et qu'on ne s'astreint pas à suivre l'histoire des mots, et à tirer de l'examen de cette histoire des principes fixes; or, nulle part moins qu'en sémantique, on ne peut déterminer *a priori* les conditions de production des phénomènes; car en aucune partie de la linguistique les conditions ne sont plus complexes, plus multiples et plus variées selon les cas". Meillet, Ling. 234—235.

It follows from this principle that pre-literary developments are best left aside at first, since the actual circumstances of the change can never be established, and that research should be restricted to periods represented by written texts. After having gained stable results there, it will be possible to conclude ex analogia with regard to earlier changes.

It is also necessary to establish as exactly as possible the chronological sequence in which new meanings arise, so as to avoid the risk of incorrect explanations, and to come as close as possible to the actual contexts in which the shifts took place. The circumstances may change so that later instances do not provide reliable information.[1])

We must try to show, then, how and in what contexts a word is used in different senses and at different periods; to infer as exactly as possible the shade of meaning in each quotation; and especially to ascertain in what context new meanings first make their appearance. We may then hope to find the explanation of each new shade of meaning, and if not the cause of the change, at least the precise conditions and extent of its action.

This involves following up *all* the meanings of a word in detail, since we can never know in advance if there has or has not been organic development; sense-changes may be effected by non-linguistic causes, by changes in the manufacture or appearance of the referents, or by our increased knowledge of them; analogical influences may have deflected the development into new channels, and so on. It is often indispensable to investigate also the history of cognate words, especially if they are identical or very similar in form, and mutual influence is suspected. Foreign influence must be taken into consideration in the case of translations or other works based on foreign sources, as for instance large portions of the OE and ME literature.

It is evident that the consideration of so many points of view makes a thorough investigation of the semantic history of a word or group of words a laborious undertaking. It is further evident that the investigation of a group of synonyms has a great advantage over the investigation of a single word, since in the former case we often find parallel developments, and a gap in the history of one word may be filled in on the basis of evidence from the others (cf. various instances of this in Stern, Swift).

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[1]) Cf. Paul, Wiss. Lex. 72: "Für die historische Entwicklung der verschiedenen Bedeutungen eines Wortes bilden natürlich die Ermittelungen darüber, wann und wo dieselben zuerst vorkommen, eine unentbehrliche Grundlage, ohne die man leicht fehl greifen kann". The point is illustrated by relevant instances in Stern, Swift 4—5. It evidently makes a considerable difference if the origin of a particular meaning has to be explained on the basis or OE, or of ME, or of NE conditions.

It has been impossible for me to make a complete collection of fresh material for the present work; I have had to make shift with the material already available in print, together with additional matter taken from the New English Dictionary. It is to be regretted that the harvest to be gathered from that great work is not so rich as might be expected. The editors of a dictionary always seek to formulate their definitions as clearly and unambiguously as possible, and among the quotations available to them they select those that show the sense defined as free as possible from implications of other senses. The intermediate uses of words, showing the transition from one meaning to another, are therefore not always found in the NED. But they are of essential importance for historical semasiology, as they often serve as links in the semantic development.

There are other points to be observed. The possibility of influence from foreign languages, or from cognate words in the same language, by sense-loan, is a trap for the unwary, and requires detailed research to be detected. The "big" words in a dictionary are generally to be avoided. If studied in detail, with copious material, they are both interesting and useful, but the instances printed in the NED are seldom sufficiently numerous to allow conclusions to be made with safety (See Stern, Swift 4). The "big" words are especially liable to sense-loans and cross-influences, since they tend to split up into several branches which may influence each other in various ways.

Words of foreign origin are mostly unsuitable as instances, since it is often uncertain what senses they brought with them into the English language, what senses they have subsequently acquired through internal English development, and what they may have borrowed from their foreign prototypes.

The best type for my purpose are words of one line of development, where collateral influences from other senses of the same word are excluded, but which are sufficiently well illustrated by quotations to show their history clearly. Even with words of this type care must be taken not to accept as absolute the dates for the first appearance of each new meaning. It has naturally not been possible, in this respect, for the NED to reach a level of reliability sufficient for detailed semantic research (see Stern, Swift 5).

With these reservations, the NED is an excellent source, and it is indispensable for verifying dates and statements in other works. I acknowledge here once for all my great indebtedness to the NED, from which most of the definitions of meanings quoted in the sequel have been taken.

Perhaps the caution advocated here will appear excessive. In my opinion it is not. Semasiology has suffered so badly from superficiality and the popularizing tendency, that what we need is a resolute application of strict critical principles, breaking once for all with the slipshod methods too often practised. Only in this way will it be possible to establish the study of meanings on a sound basis. The danger of any laxity is magnified in semasiology by our ignorance. We have not, as in phonology, a universally accepted system into which any new facts must fit, and an array of principles by which they can be tested. If we discover, or believe we have discovered, new and remarkable facts, we have no recognized standards to which they must conform, or else be rejected; it is consequently of the greatest importance that the material basis for a conclusion shall be above reproach, and it is by adding fact to fact in this way that a reliable system may in the course of time be established. At present, however, the progress is regrettably slow.

It stands to reason that in a first attempt like the present one I have not been able to comply on all occasions with these strict principles; many things are still left to conjecture, from lack of sufficient data. I venture to think, however, that no reasonable precaution has been neglected. I have endeavoured to find reliable typical instances for each class or type of change examined. These instances are intended to illustrate my points, not to prove them; that is a task for future special research. I should add that considerations of space have prevented me from printing illustrative quotations for the instances adduced, except where it was absolutely necessary, as for the permutations (ch. 13).

1.7. *The Psychological Theories. Final Remarks.* About the beginning of the present century, a number of psychologists in Germany, France, and America turned their attention more especially to the study of the higher mental processes, that is to say, to the kind of mental material that is of most importance in the meanings of words. Experimental psychology up to that time had worked mostly with nonsense syllables; now investigators began to make use of real words, and to trace the processes involved in the production and comprehension of sentences. It is evident that results gained in this way, on the basis of actual linguistic material, will be of greater value to philology than the results of experiments with meaningless words. With due caution, various results can be more or less directly applied to linguistic problems. A number of these researches will be quoted in the following chapters.

Many philologists entertain an insuperable distrust of psychological theories as applied to the phenomena of language. They point to the incontrovertible fact that psychologists disagree violently and consistently on many essential questions, and that psychological theories succeed each other with startling rapidity. We may concede all this, and still maintain the necessity of utilizing psychology for semantic work. If we look more closely, we shall find that things are not quite so black as they are painted: it is possible to discriminate. There exists a large, and constantly growing, body of experimental work, the results of which, if it is carefully performed and cautiously interpreted, stand practically independent of the changing general theories. It is mainly psychological work of this kind that is useful to the philologist, as I hope this book will show.

Many writers on epistemological and logical problems have also sought to establish their science on a more empirical basis, seeking contact with psychology. Husserl's Logische Untersuchungen (1901, 2 ed. 1913) is the earliest work of this kind that I have consulted. It contains an analysis of meaning founded on principles proposed by F. Brentano, and altogether different from those of Wundt. Husserl's views have been extensively taken up by later writers. A whole volume on semasiology was published by H. Gomperz in 1908, comprising, among other valuable contributions, the first adequate definition of meaning on modern lines.

Work on the new lines, both in psychology and epistemology, has continued without cessation, and important contributions have been made from the three countries mentioned, as well as from England. I refer to the quotations throughout this book, and to the Bibliography.

These circumstances are of the greatest importance for semantic work. They enable us to approach the problems armed with theories and explanations that represent a great advance on those available to Wundt and his contemporaries thirty years ago. The new theories and experimental results have, as far as I know, not yet been systematically utilized for the purposes of semasiology although they have been accessible in print for a number of years[1]).

The new theories and facts must be taken up in semasiology. If a scholar is compelled to borrow theories or other material from a branch of study not his own, and in which, therefore, he is not able to produce original research, it is, I think, obligatory on him to ascertain what the leading men of that other branch are teaching *now* — not what they taught thirty years ago.

None can know better than myself the difficulties of such a task in the case of psychology. Psychological books are pouring out in an ever increasing stream, and the task of picking out what is valuable and worthy of utilization is too great for one; it is impossible to acquire familiarity with everything. In a study that is not one's own it is difficult to move with certainty; the risk of overlooking relevant facts, or of generalizing on too narrow a basis, is ever present. I offer no excuse for my mistakes and omissions; I can only hope that my contribution will stimulate others to improve on what I have done. It seemed to me that the work had to be attempted, and it is, I think, a work that should be undertaken by philology. It is no easy thing for a philologist to select and apply the necessary psychological theories and facts, but it is probably still more difficult for a psychologist to work in linguistic material. It is not enough to be conversant with modern languages. Historical material is indispensable, and presupposes the ability to work with at least one language at all periods, ancient and modern. Still more important is a methodical training in the handling of linguistic material and books of reference, a training that is not easily acquired by outsiders.

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[1]) See Pick's and Bühler's Berichte über Sprachverständnis, 1909, as well as Bühler's papers in ArchfdgPs. 9 and 12. Useful summaries of the new departures may be found in Pick's Agrammatische Sprachstörungen 1913, in Stählin's dissertation on metaphors, 1913, in Willwoll, Begriffsbildung, 1926, and in Bühler, Krise, 1927.

CHAPTER II

PRELIMINARY STATEMENTS

2.1. Language and its Functions.

2.11. *Speech and the Language System.* The words and meanings discussed in the present work are the words and meanings occurring in the concrete acts of producing and comprehending speech. I shall use the term *speech* to denote both the activity and its results; including, consequently, (1) on the emissive side, the actual enunciating or writing of the verbal signs, and the thinking of their meanings; and on the receptive side, the hearing or reading of the signs and their interpretation into meanings; (2) the signs enunciated or written, and the thoughts that are their meanings.

The signs themselves, their production and perception, need only occasionally be touched upon, my subject-matter being the thinking (*cogitatio*) of their meanings, as well as these meanings regarded as thoughts (*cogitatum*).

Each member of a speaking community has learned, during the first years of his life, how to use his mother tongue. He has acquired a stock of knowledge regarding the form and use of words, their meanings, and the rules for their combination into phrases. We may term this stock of knowledge the *language system*, and describe it as the product of speech habits. These habits are imposed on the individual by the fact that if he wishes to be understood by his fellow-speakers, he must conform to their conventions. Each speaker can know only what he has been able to learn from his individual experience, and since different persons have different opportunities and live in different surroundings, no two language systems are completely identical.

Each speaker must conform primarily to the usage of his own group. But since all groups within a speaking community are more or less interlinked, there exists a body of conventions common to all speakers of one language, that is to say, there is a similarity on many points between the individual language systems. We may speak of a general, transsubjective, language system, comprising what is common to all speakers, or at least to the majority, but we must take care not to hypostatize this abstraction into a concrete entity, as some writers are fond of doing.[1]) No language system has a real existence except as a stock of knowledge in an individual mind, and each mind can harbour its own system only.[2])

The distinction between speech and language system is based on the same fundamental principles as the distinction between actual and lexical meaning (4.22). An actual meaning is an element of speech; a lexical meaning is an element of the language system.

As a comprehensive term, covering both speech and language system, I shall use *language*.

2.12. *The Functions of Speech.* I shall speak here only of constitutive functions, essential to fully developed human speech.

For a long time, it has been a widely diffused opinion that the function of communicating mental content is the primary function of speech, even if not the only one. This view was held by Paul, although he gives no explicit definition to that effect, and many philologists will be inclined to agree with him. On the other hand, some psychologists deny that the communicative function is essential (see note p. 21 below). It seems to me that it is difficult to do without the communicative function in some of the analyses in the present study, and I consequently assume that it is constitutive (cf. 3.25).

The expressive function of speech was rather one-sidedly stressed by Wundt (see esp. I 43, II 651). According to his theory, speech is a movement of expression, *Ausdrucksbewegung*. Mental processes, especially of an emotive kind, often cause involuntary movements of a reflex nature. If the movements are localized in the respiratory and articulatory organs they may lead to the production of sounds, which Wundt calls *Lautgebärden*, vocal gestures, and which he regards as being in origin and nature closely parallel to mute gestures. We find them used by most animals (cf. 2.22 on signals). This phonetic material, existing before speech, was taken into the service of the developing human intelligence, which for expressing its more and more differentiated and well-defined content required more and more differentiated and numerous sounds, and the constant interaction of speech and intelligence finally led to fully developed languages. The expressive function is universally regarded as essential for speech, but we now rate its part lower than Wundt did (cf. Bühler, Satz 3; Laguna 10 sqq.).

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[1]) See for instance Sechehaye, Structure 12: "La langue *en se faisant* un vocabulaire *crée* donc avant tout des signes d'idées." (My italics). Nothing is gained, except confusion, by such terminology.

[2]) De Saussure has made a similar distinction one of the main points of his Cours de Linguistique, but has turned the matter upside down by making *la parole* (speech) accessory, accidental, and secondary in relation to *la langue* (the language system). See Saussure 25 sqq., 30, 37. A carefully considered criticism of the "social" school is given by Delacroix 47 sqq. Cf. also Delacroix, L'analyse psychologique.

It was one of the earliest views of language that words are primarily names of things: the essential function of speech is that of naming. During the last fifty years this theory has again come to the front, although in a modified form. We speak now of the symbolic function; the word symbolizes its referent (see on this term 3.13). The word *symbol* is then used in a restricted sense, as denoting a sign which also *names* that for which it is a sign; *table* is the name of an object, *red* of a quality, *run* of an activity, *over* of a relation. The symbolic function is especially characteristic of unemotional descriptive style. For instance, the passage, "Swift's father died before his birth, and his mother was very poor", is intended primarily to symbolize a set of facts (*Sachverhalt*); each word is linked up with a more or less definite referent. Of such a phrase we may say that it is true or false, not through its relation to speaker or hearer, but through its relation to facts (cf. Gomperz, Sinn 83). It is the symbolic aspect of language that makes it a subject for logical analysis.

We have, finally, the purposive or effective function, the importance of which is now generally recognized. The purposive nature of speech was emphasized by Marty, who states that our primary intention when we express our thoughts is "eine entsprechende Beeinflussung des fremden Seelenlebens"; intentional speech is a form of activity the main purpose of which is to evoke in other persons certain psychic phenomena. In comparison with this intention the expression or indication of the speaker's own mental processes appears only as a means (Marty, Unt. 22, 284, 384, 433 sqq., 463, 493; Marty, Schr. II. 1.69). Later writers lay more emphasis on the use of speech for influencing the acts of other persons than for influencing their mental processes. "Once we deliberately ask the question: *What does speech do? What objective function does it perform in human life?* — the answer is not far to seek. Speech is the great medium through which human co-operation is brought about. It is the means by which the diverse activities of men are co-ördinated and correlated with each other for the attainment of common and reciprocal ends. Men do not speak simply to relieve their feelings or to air their views, but to awaken a response in their fellows and to influence their attitudes and acts. It is further the means by which men are brought into a new and momentous relationship with the external world, the very relationship which makes the world for them an objective order" (Laguna 19, 241 sqq., Pillsbury-Meader 15, 107 sqq., Gardiner 152, Rignano 92 with quotation from J. Mill, Cassirer, Spr. u. M. 32; Phil. I 42—43, 55 sqq., 246, 254 sqq.; Paulhan, Rev. Phil. 104, 22 sqq.).

As a matter of fact, the theory of an effective function is a practical and logical consequence of the theory of an expressive function. A producer of signs naturally implies a receiver of signs; they are correlative notions (cf. Bühler, Krise 33). We need only remember that the absence of an audience generally means absence of all stimulus to speech. In solitude most people are mute; if there is no receiver of signs — no audience — speech is of no use, since it can have no effect. This does not mean that the receiver is passive; the comprehension of an utterance demands incessant activity on the part of the listener, and the effect of the utterance is perhaps best described as a regulating of the receiver's own mental processes (Bühler, Krise 43 speaks of *Steuerung*). The imperative is the extreme case; but the term "influence" (*Beeinflussung*) must be taken in a wide sense; the purpose in view may be merely to inform the listener of something; this is usual in narrative style, as in the sentence just quoted: "Swift's father died before his birth, and his mother was very poor". In other cases the purpose may be to convince the listener of something, to make him perform some action, to make him react emotionally in a specified way, and so on.

The theory agrees with the view that speech requires what Bühler (Krise 42) calls *die unentbehrliche Zweieinigkeit von Zeichengeber und Zeichenempfänger*, and partly also with the opinions of de Saussure and his followers concerning language as a social phenomenon. (Cf. Cassirer, Phil. I 254).

The effective function must, I think, be the most important of the primary functions, for if, for instance, the words I am writing here are to have the intended effect on the readers, they must (1) symbolize certain referents, *i. e.*, the topic which I am discussing; (2) express my views of it, and (3) communicate this to the readers; only if these three functions are filled, can speech (4) perform its effective function, which is thus founded on the others. The interrelations of the functions are not known in detail.[1]

As far as I can see, no other function of speech is essential.

2.13. *The Functions of Words and the Functions of Speech.* We have, I think, to make a distinction between the functions of words and the functions of speech. I am speaking all the time of words in speech, not of words as elements in the language system (cf. 4.22).

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[1] Bühler (Satz 1 sqq., Krise 30 sqq.) reckons with three functions of language: *Kundgabe* (expression, or, as Gardiner translates it, Br. J. of Psych. 361, self-expression), *Auslösung* (release, Gardiner: demand for response), and *Darstellung* (Gardiner: description), corresponding approximately to what I have called the expressive, the purposive, and the symbolic functions (cf. Willwoll 10 and Stern, Kindersprache 124 sqq.).

Ogden-Richards (357 sqq.) distinguish five functions of "language as a means of communication": (i) symbolization of reference, (ii) the expression of attitude to listener, (iii) the expression of attitude to referent, (iv) the promotion of effects intended, and (v) support of reference. The referent is the topic of speech (the "object"), and the reference the relation between symbol and referent. See further ch. 3. Of these factors, (i) corresponds to *Darstellung*, or the *Nennfunktion*, (ii) and (iii) to *Kundgabe*, or expression, split up into what are no doubt its two main factors (see 4.151), and (iv) corresponds more or less to *Auslösung*. With regard to (v), I think we may leave it aside; the explanation given by Ogden-Richards is not entirely convincing. It seems to me to be a phase of the attitude to the referent. In general, Ogden-Richards define language as an instrument for the promotion of purposes (l. c. 21).

Bühler does not mention the communicative function; possibly he includes it in the *Auslösungsfunktion*. I do not see that the symbolic or expressive functions are either more or less essentially involved in the Auslösungsfunktion, the purposive function, than communication is. As emphasized by Laguna in the passage quoted above, an essential phase of the purposive function is the coordination of human activities: the communicative aspect is clearly of prime importance here. Its importance is not lessened by language occurring "im einsamen Seelenleben" (Husserl II.1.35, Marty, Unt. 494 sqq.) as a necessary method of formulating mental content that would not otherwise be apprehended with anything like the same clearness.

Ogden-Richards seem to set the communicative function apart in some way, speaking of the various functions of language "as a means of communication". They do not state exactly how they consider the communicative function to be related to the other functions. — On the history of linguistic theory in general, see Cassirer Phil. I 55 sqq.

The word has three functions: (1) the communicative function, (2) the symbolic function, (3) the expressive function (cf. 2.12). The discussion concerning the definition of meaning (ch. 3) will show that all three are essential; in individual instances one or the other may predominate. I have not been able to find any more constitutive functions in the meanings of words.

Speech, on the other hand, has for its main function the promotion of purposes. No trace of this function is found in the meaning of the single word, *when analysed alone*, and it should therefore probably be regarded as a peculiarity of the psychic complex that constitutes the meaning of a complete utterance. Only in the one-word sentence, the extreme case, where utterance and word coincide, can the word acquire a purposive function. The latter is no doubt intimately connected with the initial adjustment to the situation described in 5.4 below. Such an adjustment can evidently occur only in actual speech, not in regard to isolated words or sentences (4.22), which have no bearing on the facts of real life.

It seems not improbable that we should consider the purposive function as a phenomenon of the kind called by psychologists configurational qualities (*Gestaltqualitäten*), which are peculiar to complex formations, but disappear when these are analysed into their constituent elements (see further 4.27, 5.4, 6.38, and Pick, Sprachstör. 130 sqq., with numerous quotations). What are the smallest portions into which speech can be split up without losing the purposive function, is a problem that I have to leave aside as not relevant to the present study.

The functions belonging to the constituent parts — the words — belong also to the constituted whole — speech. The purposive function of speech is conditioned by the three verbal functions, and could not be effective if the words employed in speech did not (1) communicate to the hearer a set of facts (*Sachverhalt*) which they (2) symbolize, and of which they (3) express the speaker's opinion.

A detailed discussion of these problems falls outside the scope of the present study, and I refer the reader to the authors already quoted (concerning the origin of language see especially Laguna). The view that speech is primarily an instrument for the promotion of purposes, or, from another point of view, a purposive action, *eine Zweckhandlung*, and that this function involves communication, reference (symbolization), and expression, agrees better than any other with the known facts of sense-change, and affords a plausible explanation for them. The uses to which a tool is put, naturally react on the tool itself, especially in the case of a tool so sensitive and flexible as language. In a great number of cases we have therefore to regard sense-changes as successive phases in the attempt, intentional or not, to adapt language to the purposes for which speakers make use of it.

According to the hypothesis adopted, a certain preponderance is given to the speaker's point of view, the productive aspect. It is, after all, the speaker who employs language for his purposes. On the other hand, since his purpose is to influence the hearer's mental life, he must take care to be understood by his listener, and this fact immediately imposes on the speaker's use of language, and on language itself, certain very definite limitations: understanding is as important a factor for the development of language as speaking is (Delacroix 70). Here, too, the purpose reacts on the instrument.

2.2. Signs and Meaning in General.

2.21. *General Theory of Signs.* A word is a kind of sign or symbol. How can one entity become the sign of another; how can it acquire meaning? I shall give a summary of the explanations found in Ogden-Richards (138 sqq.; cf. also Pillsbury-Meader 157 sqq., Cassirer, Phil. I 26 sqq.).

"The effects upon the organism due to any sign, which may be any stimulus from without, or any process taking place within, depend upon the past history of the organism, both generally and in a more precise fashion. In a sense no doubt the whole past history is relevant; but there will be some among past events in that history which more directly determine the nature of the present agitation than others. Thus when we strike a match, the movements we make and the sound of the scrape are present stimuli. But the excitation which results is different from what it would be had we never struck matches before. Past strikings have left, in our organism, engrams (Semon's terminology), residual traces, which help to determine what the mental process will be. For instance, this mental process is among other things an awareness that we are striking a *match*. Apart from the engraphic action of similar previous situations we should have no such awareness. Suppose further that the awareness is accompanied by the expectation of a flame. This expectation again will be due to the engraphic action of situations in which the striking of a match has been followed by a flame. The expectation is the excitation of part of an engram complex, which is called up by a stimulus (the scrape) similar to a part only of the original stimulus-situation".

A sign, then, according to this view, is always "a stimulus similar to some part of an original stimulus and sufficient to call up the engram (if the reader is doubtful about engrams he may read "to call up an excitation similar to that caused by the original stimulus") formed by that stimulus". The general law is that "when a context (this term is defined p. 25) has affected us in the past the recurrence of merely a part of the context will cause us to re-act in the way we re-acted before". (Ogden-Richards 139—140).¹)

It is especially important to notice that when, in the instance given, we are expecting a flame, "the mental process which is the expectation is similar to processes which have been caused by flames in the past", and it is "directed to" flame. "A thought is directed to flame when it is similar in certain respects to thoughts which have been caused by flames" (Ogden-Richards 140—141). 'Direction' is here equivalent to reference, which is the term I shall make use of in the sequel.

Ogden-Richards give another instance that may usefully be quoted. "There is a well-known dog in most books upon animal behaviour which, on hearing the dinner bell, runs, even from parts of the house quite out of reach of scents and savours, into the dining room, so as to be well placed should any kind thoughts towards him arise in the diners. Such a dog *interprets* the sound of the gong as a sign. How does this happen? We shall all agree about the answer; that it is through the dog's past experience. In this experience there have been so to speak recurrent clumps of events, and one such clump has been made up roughly as follows, Gong, savoury odour, longing contemplation of consumption of viands by diners, donations, gratification. Such a clump recurring from time to time is what will be hereafter spoken of as an external context. Now on a particular occasion the gong is

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¹) This agrees with the usual formulation of the general law of association, or *Komplexergänzung*. See for instance Claparède 165, Selz I 105 sqq., 175, Burkamp 259, Helson 36, 354, quoting Koffka: "If A, B, C . . . once, or several times, have been present in experience as members of a configuration, and if one of them appears bearing its membership character, then the tendency is present for the whole structure to be completed, more or less fully and vividly".

heard out of reach of savours. But thanks to past experience of gong sounds together with savours in the interpretative dog, this present gong sound gets into a peculiar relation to past gongs and savours, longings, etc., so that he acts in the sagacious manner described, and is in evidence at the meal. Now this set of mental events — his present hearing of the gong, his past hearings of similar sounds, his past savourings together with gongs, etc., and also his present mental process owing to which he runs into the dining room — such a set is what will hereafter be alluded to as a psychological context. A context of this sort may plainly recur as regards its more general features. It is also clear that the members of it may be indefinitely numerous and may be widely separated in time, and that it is through this separateness in time that such a psychological context is able to link together external contexts, the recurrent clumps of experiences of the gong-savour kind above mentioned. In a similar fashion all learning by experience will illustrate the point that to be an act of interpretation is merely to be a peculiar member of a psychological context of a certain kind; a psychological context being a recurrent set of mental events peculiarly related to one another so as to recur, as regards their main features, with partial uniformity" (l. c. 143—145; cf. also Poppelreuter 251, Dashiell 25).

To say that one thing is the symbol or sign of another is thus, according to Ogden and Richards, equivalent to saying that the thoughts of these two things are members of the same psychological context; and it is an indispensable condition that such contexts should recur with partial uniformity. "To say that I recognize something before me as a strawberry and expect it to be luscious is to say that a present process in me belongs to a determinative psychological context together with certain past processes (past perceptions and consumptions of strawberries). These psychological contexts recur whenever we recognize or infer. Usually they link up with (or form wider contexts with) external contexts in a peculiar fashion. When they do not we are said to have been mistaken. The simplest terminology in which this kind of linkage can be stated is that of signs. Behind all interpretation we have the fact that when part of an external context recurs in experience, this part is, through its linkage with a member of some psychological context, *i. e.*, of a causally connected group of mental events often widely separated in time, sometimes a sign of the rest of the external context" (l. c. 145—146).

Primarily, then, for A to be a sign or symbol of B, is for the thought of A to 'be directed to' or 'to refer to' the thought of B. I shall make use of the latter term, speaking of the *reference* of the symbol to the thing symbolized, and calling the latter the *referent* (see on this term ch. 3)[1])

Further, to be a sign or symbol of something is to have *meaning*. The terms are to be taken in the widest sense. A door has meaning for us because we know what it can be used for: it can be opened to give access, or closed to exclude (cf. Bourdon 195, Dashiell 25).

The use of signs for communication is founded on the fact that a hearer may make a reference "similar in all relevant respects to that made by the speaker. It is this which gives symbols their peculiarity as signs. Thus a language transaction or a communication may be defined as a use of symbols in such a way that acts of reference occur in a hearer which are similar in all relevant respects to those which are symbolized by them in the speaker" (Ogden-Richards 333).[2])

We have thus arrived at the result that to be a symbol or a sign is to involve a reference to another entity, to some thing symbolized, and that this is equivalent to having meaning. Such a reference is founded on the fact that the entities are members of recurring contexts. The possibility of communicating by signs is dependent on similar references being made by speaker and hearer. (Cf. also Willwoll 9, quoting Meinong).

2.22. *Signals, Symbols, and Substitute Signs.* Having given a general definition of signs, we now have to analyse the way in which words function as signs. What has been said in 2.13 concerning the constituent functions does not apply to all so-called words. If a person bangs his head against a door, and cries *oh!* the exclamation is a sign of the pain, but it is not the *name* of the pain, in the way that *table* is the sign and name of an object. Expressed in the terms defined in the preceding paragraph, *oh!* is not a *symbol* of the pain; it is essentially a reflex movement in which the expressive function predominates; it is precisely what Wundt called a vocal gesture (*Lautgebärde*), and his theory of *Ausdrucksbewegungen* is applicable here (cf. 2.12). The sound can be replaced by a mute gesture or facial contortion, or may be accompanied by them. I shall call signs of this type *signals*, a term once used by Cassirer, distinguishing them from the *symbols*, or signs which are also names for their referents.

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[1]) Ogden-Richards use the terms in a slightly different sense: "A symbol as we have defined it symbolizes an act of reference; that is to say, among its causes in the speaker, together no doubt with desires to record and to communicate, and with attitudes assumed towards hearers, are acts of referring. Thus a symbol becomes when uttered, in virtue of being so caused, a sign to a hearer of an act of reference. But this act, except where difficulty in understanding occurs, is of little interest in itself, and the symbol is usually taken as a sign of what it stands for, namely that to which the reference which it symbolizes refers" (l. c. 332).

[2]) Cf. Russell's definition (Mind 1920): "1) A sign is an occurrence which, through mnemic causation, has mnemic effects (not, in general, other effects) appropriate (from the point of view of the animal's instincts and desires) to some other occurrence or set of occurrences with which it is apt to be associated. 2) In such a case, the other occurrence or set of occurrences is the meaning of the occurrence which is a sign". See also Bradley's definition, Logic I 4.

Words like *damn*, *hell*, etc., are sometimes used as signals, in more or less automatic reaction to pain or other feelings; but they can also be used as symbols, as names for their referents. (Cf. Cassirer, Phil III 127).

Biologically, the signals are very old; most animals are able, through signals in the form of mute or vocal gestures, to make clear to others their own state of mind, while the use of symbols lies altogether outside the range of animal intelligence, and, in fact, constitutes the essential difference between the language of animals and that of human beings. The former has, as Bühler says (Krise 37), one dimension less.

Our highly developed languages still make constant use of signals alongside of the symbolic words. Here belong not only gestures of all kinds, but also intonation, the alternation of stronger and weaker stress, pauses, speed of enunciation, and other ways of indicating our subjective attitude to the topic of speech that is named by the symbolic words, as well as the melodic, rhythmical, and echoic effects made use of by poetry. Signals and symbols are both indispensable elements in our stock of means of expression, and it would in most cases be very difficult to discriminate what we express by signals and what we express by symbols, or, conversely, what the listener learns from our symbolic words and what he learns from the running accompaniment of signals.¹)

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¹) Cf. Stout II 192 sqq., Husserl II.1.23 on *Zeichen* and *Anzeichen*, and II.1.78 on the distinction between what he terms "Ausdrücke, die das Gegenständliche, *das sie nennen* (oder überhaupt bezeichnen) *zugleich kundgeben*, und solche, bei denen *der genannte und der kundgegebene Inhalt auseinandertreten*". In my ter-

Words may function as signs in a third way, termed by Stout (II, 192 sqq.) *substitute signs*. "A substitute sign is a counter which takes the place of its meaning; so long as it fulfils its representative function, it renders useless all reference to that which it represents. The counters are manipulated according to certain rules of operation, until a certain result is reached, which is then interpreted. The operator may be actually unable to interpret the intermediate steps. Algebraical and arithmetical symbols are to a great extent mere substitute signs. The same is true of the symbols employed in formal logic." A symbol is, as Stout points out, a means of thinking about its referent; when we use substitutes we do *not* think about that which they symbolize.[1]) It is characteristic of the substitutes that they completely lack the expressive function (cf. Cassirer, Phil. III 393).

In the present study, words as used symbols are the sole topic. The two other kinds of signs will only occasionally be touched upon.

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minology, between expressions that are both symbols and signals for one referent, and those that are symbols for one referent and signals for another. In the assertion *twice two is four*, the utterance is a symbol for a mathematical fact; on the other hand, it is also a signal to the hearer that the speaker believes in the truth of the assertion. A symbol for this belief would be, *I believe that twice two is four*. The former assertion in this sentence may be false, and the latter true. Cf. also Marty, Unt. 490 sqq., Cassirer, Phil. III 375, Willwoll 7 sqq., Gomperz, Sinn 81 sqq., and the discussions below in 4.14, 4.15, and 5.21.

[1]) On the mathematical signs, see Husserl II.1.68, Schwarz 157, Gomperz II. 1.133, Fischer, Arch. 43, 39 sqq.

CHAPTER III

THE DEFINITION OF VERBAL MEANING

3.1. The Factors of the Meaning Complex.

3.11. *The Three Factors.* In all normal use of speech, in all ordinary discourse (*in der gewöhnlichen Sprechtätigkeit*, as H. Paul terms it), when words are being used as symbols, we have to reckon with the following factors (cf. Pfänder 7):

(1) A thinking and language-using *subject* (speaking, writing, hearing, reading).
(2) The *acts of thinking* taking place in the mind of the subject.
(3) The *thoughts* forming the content of these acts of thinking.
(4) The *word-forms* to which the thoughts are associated and which express them, more or less completely.
(5) The subject, the acts of thinking, and the thoughts are referred (in the widest sense of this term) to some *object*, which I shall call the *referent*.

This applies both to the producer and the receiver of speech.

The distinction between acts of thinking (the subjective thoughts, *cogitatio*, *das Denken*), and the content of these acts (the objective thoughts, *cogitatum*, *das Gedachte*), is of importance for some problems. For the present, I shall make use of the term *mental content* as comprising both cogitatio and cogitatum. I shall further use the terms *speaker* and *hearer* as equivalent to producer and receiver of speech, respectively. It is often necessary to consider speaker and hearer separately.

The subject, speaker or hearer, enters into the present argument only in his aspect of thinking the mental content, and need therefore not be otherwise included. We have to keep in mind, however, that the mental content is not an independent entity, but is an individual person's mental content. The two primary factors in all speech are (1) the thinking and speaking (or listening) subject, and (2) the things spoken of (the referent).[1] Words and their mental content are the instruments used by the subject for certain purposes, just as they are the instruments through which the hearer grasps the speaker's intention. This follows as a corollary of the view that speech is an instrument for the promotion of purposes, for the purposes are naturally those of an individual who uses speech to promote them.

The fact that words and meanings are secondary, conditioned, phenomena, has been neglected by most philologists writing on semantic theory, and also by earlier psychologists. They handle words and meanings as primary, independent, entities, a view that leads them into various mistakes.

I shall make use of the habitual terminology, according to which the words *denote*, *name* or *designate*, the referents, and *express* the mental content, although it would be more correct to say that the subject denotes, names, or designates the referents, and expresses his mental content by means of the words. It will sometimes be necessary to emphasize this point in order to avoid mistakes in the analysis.

By comprising cogitatio and cogitatum under the heading of mental content, and by excluding the subject as a separate factor, since he is represented by his mental content, we reduce the five factors of meaning to three:

(1) *the word*, expressing the mental content and denoting the referent;
(2) *the mental content*, connected with the word, and involving a reference to the referent;
(3) *the referent*.[2]

Before entering upon the details of the problem of definition, it will be useful to make some comments on the terms word and referent, and especially to discuss the question whether meaning may be identical with word or referent, or have any element in common with either.

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[1] "(Die Sprache) ist niemals Aussage schlechthin, sondern immer lebt in ihr zugleich ein Modus, eine individuelle Form des Sagens, in der das sprechende Subjekt *sich selbst* ausspricht. Alle lebendige Rede schliesst diese Doppelheit, diese Polarität von Subjekt und Objekt in sich. In ihr wird nicht nur auf bestimmte Sachverhalte hingedeutet, sondern in ihr prägt sich die Stellung des Subjekts zu diesen Sachverhalten aus." Cassirer, Phil. III 393.

[2] See on this matter also Gomperz II.1.61, Husserl II.1.31, Moore, Mono. 243, Ogden-Richards 14, Gardiner 354, and Meinong's formulation, quoted Willwoll 9.

3.12. *The Word.* Meaning is a property peculiar not only to what we traditionally call words, but also to parts of words, *e. g.* the genitive ending in *man's*, and to groups of words, *e. g.* compounds or clauses. As a comprehensive term Noreen (Betr. 200) has proposed *semem*, formed on the analogy of the French terms *phonème* and *morphème*; Vendryes (85) has proposed *sémantème*, and C. S. Peirce, quoted by Ogden-Richards (438) has *seme* and *pheme*. None of these coinings seems to have gained the approval of English writers. For my purposes it does not seem necessary to adopt any of them, or to coin a fresh term, since I am treating only of the meanings of what we traditionally call words, except where I have to discuss the relations between the meanings of words and those of other linguistic formations.

The word, as distinguished from the mental content that it expresses and from the referent that it names or denotes, is in this book always to be understood as a physical phenomenon, acoustic, visual, or tactile, together with the verbal images, visual, acoustic, or motor (graphic, articulatory) involved in the pronunciation, hearing, reading, writing, and even in the mere thinking of the word. It is not necessary for me to make any further distinctions in this matter, or to discuss the very complicated relations obtaining within the word-complex.¹)

A "word" without an associated mental content has no meaning, it is merely a flatus vocis. That is the case with a word from an unknown language. If the sound-complex is to be apprehended as meaning something, as significant speech, a mental content must accrue to it. (Gomperz II. 1. 65, Husserl II. 1. 32—33, Martinak 2, Schmitt 207, quoting Humboldt, Pos 103).

3.13. *The Referent.* The referent is that which is denoted by a word, that to which word and meaning refer. It may be concrete or abstract, actually existing or imaginary; in short, anything that is capable of being made the topic of formulated thought and speech.²)

Philologists have, as previously remarked, generally neglected to take the referent into account in their analyses of meaning and change of meaning. The necessity of doing so will be abundantly evident from

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¹) See further Noreen, Betr. 203 sqq., 433, Jespersen, Phil. of Gr. 92, B. Erdmann II. 362 sqq., Wundt I 568 sqq., Otto 36, Gutzmann 47, Moore, Mono. 100—101.

²) The term referent is adopted from Ogden-Richards, who define it as "whatever we may be thinking of or referring to" (Ogden-Richards 13, note).

the following discussions. In all ordinary discourse our attention is directed towards the topic, the referents; our mind goes on at once from the words to the referents, from the symbol to that which it symbolizes, and promptly forgets all about the symbols, to which only so much attention is given as is necessary to deduce from them the reference to the topic (Cf. Schiller 385 sqq., Marty, Unt. 491, Feldkeller 290, Pos 118).

3.14. *Word and Meaning.* Can the word — in which term, as previously stated, I include the verbal images — be wholly or in part identical with meaning?

Such an opinion is held by the behaviourists, according to whom thought is the action of language mechanisms, and thinking is subvocal talking (J. Watson, Psychology from the Standpoint of a Behaviorist, 14 and 316, quoted by Otis 399; Watson, Br. J. of Psych. 9; for criticisms and suggestions on other lines, see four other papers in the same volume; R. H. Wheeler, Development). A different view is defended by Marty, Unt. 459—460, Husserl II. 1. 68, Gomperz II. 1. 63, Spearman 181, Schiller, Mind 385 sqq., James I 251, 253, J. S. Mill, Logic I 196, quoted by Rignano 281, Moore, Mono. 85, 101, 174, 224, 229.

Gomperz points out that word and meaning may vary independently of each other, and therefore cannot be assumed to coincide. The same meaning can be expressed through different words, as German *breit* and English *broad*; conversely, different meanings can be expressed by the same word, as instanced by *crown* or any other polysemous word.

It is true that word and meaning are intimately fused (see 3.21), and also that the trains of thought characteristic of an educated adult person would not be possible for anyone not acquainted with the use of words, although such thought may nevertheless occur without them (Stout II 186). In spite of this fusion of word and meaning, Spearman shows that his observers were always able to distinguish the two elements.

It is the latter of the two opinions that agrees with the general position in matters of psychology that I have taken up, and which must therefore be adopted for the purposes of this study. I assume that word and meaning never coincide. This seems to be the reasonable view when we apprehend words as expressive signs; the same entity could not very well be simultaneously expression and that which is expressed.

3.15. *Referent and Meaning.* We have next to discuss the question whether meaning and referent can coincide, wholly or in part.

When the referent is a material object, it can evidently not coincide with meaning, which is a psychic entity.

With regard to abstract referents, opinion among psychologists is divided. Stumpf contends, according to Titchener (Am. J. of Ps. 33, 48) that when our thought is directed upon the universal as such, upon concept or law, then content and object (approximately equivalent to what I call meaning and referent) coincide: the content is, by its very nature, object; or, in my terminology, the objective thought (cogitatum) is identical with the referent thought about. Thus, for instance, the concept of relativity, when spoken of, would be both meaning and referent.

We have here perhaps a difference in the interpretation of terms. When anyone speaks of relativity, the meaning of the word, according to the definition that will be given below, is the speaker's subjective apprehension of the concept of relativity (*i. e.*, of the referent), and it is clear that such apprehension will vary widely for different individuals, as well as for the same individual on different occasions. But the trans-subjective concept of relativity remains untouched by these variations. I therefore make a strict distinction between the concept of relativity as referent, and the various individual ways of apprehending this referent, as meanings. This view is supported by Husserl II. 1. 43, 46, 370 sqq., and Hönigswald 131—132, quoting Bolzano's Wissenschaftslehre (cf. 4.23).

Gomperz (II.1.63) insists that *Aussagelaute* and *Aussagegrundlage* cannot coincide because very different referents can be apprehended through the same meaning, and different meanings can refer to the same referent. A meaning expressed by the sentence *There flies a bird* can refer to a fluttering sparrow, to an eagle or a swallow flying along, etc. On the other hand, a sparrow fluttering outside the window may be referred to by meanings expressed in sentences like *there flies a bird, there is a sparrow fluttering, look, there is an animal, how frightened it is,* etc. These may all be correct apprehensions of the same referent.

I think the simplest way is to follow Husserl and Gomperz. Their theory gives us the same distinctions between word, meaning and referent throughout the whole field, whether the referent is concrete or abstract. Especially with regard to abstract referents, it seems useful to distinguish clearly the referents, on the one hand, and the meanings through which the referents are apprehended, on the other.

3.16. *Mental Content and Meaning.* If meaning does not, even in part, coincide with word or referent, it follows that it must be sought entirely in the mental content that accompanies speech. We have to consider whether meaning is identical with the mental content as a whole, or with certain elements of it.

It is easy to see that meaning cannot be identical with the total mental content occurring in connection with a word, or present in consciousness simultaneously with it. We are, for instance, always more or less conscious of ourselves and our surroundings. As I write, I am conscious of the paper and the typewriter, of the table in front of me and of the light from above. I hear sounds from an adjoining room and from the street, and I feel the current of air from the open window. The consciousness of these concomitant cirumstances lies at the back of my mind, forming a dimmer fringe to the focal elements on which I am concentrating my attention. It is evident that this consciousness does not belong to the meaning of the words I am using, except when, as just now, I am making it the topic of discourse. This applies to both speaker and hearer (Dewey 6, Moore, Mono. 190 c).

A feeling of familiarity or recognition may also accompany the perception of a word, although it is generally not noticed, but merged in the meaning. However, it may occur in isolation, when we recognize a word, but do not remember what it means. This feeling is connected with the word, but does not belong to its meaning. See 6.22 below.

We have further to note that associative processes originating in a word may go in other directions than, and far beyond, its meaning. *Harmodios* may evoke the thought of *Aristogeiton*, but *Harmodios* does not mean Aristogeiton (Gomperz II. 1. 139. Messer, Arch. 61).

A person speaking may have his mind at work selecting and judging the material he is going to present to his listeners, weighing it as he goes along, and performing other mental operations which do not enter into the meanings of the words used, although they are intimately connected with them and may have been decisive for the selection.

A listener, too, does not merely receive and passively register the meanings of the words he hears, but proceeds at once to combine them with what he previously knows or has heard of the topic, to form judgements, approve or reject, and so on (cf. 6.33). All this is mental content connected with the phrases heard, but only part of it can be said to belong to the meanings of the words. The rest I shall call *mental context.* (See 4.16 and 6.32).

It is evident enough from these brief indications that meaning is not identical with all the mental content associated with the word, but only with part of it. Mental content thus forms the genus proximum for a definition of meaning. It remains to find an adequate differentia specifica.

3.2. The Definition of Meaning.

3.21. *The Connection between Word and Meaning.* Although meaning has not yet been precisely defined, we have arrived at the conclusion that it must be a portion of the mental content connected with the word. Before proceeding to the definition it is necessary to analyse the nature of the connection.

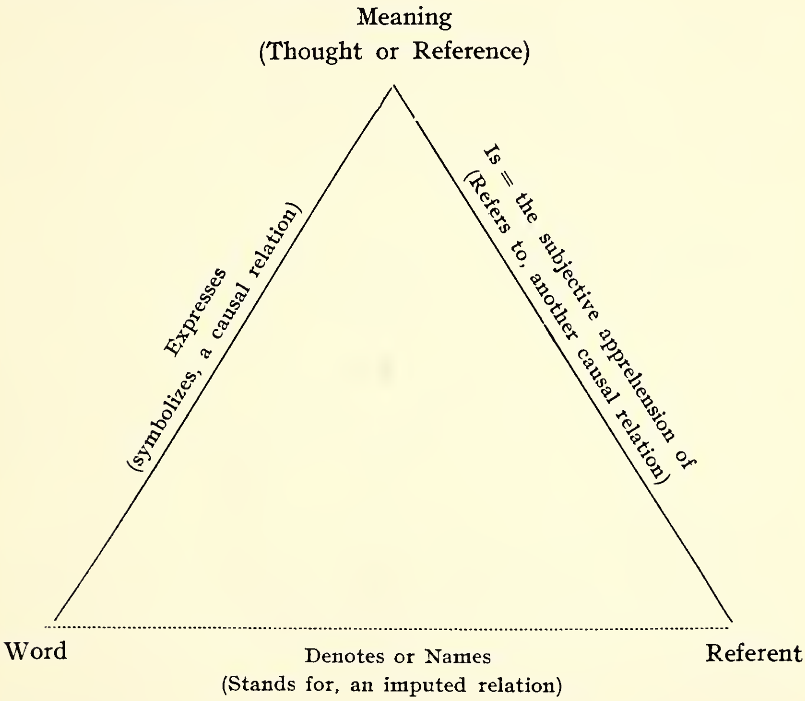
According to the older view — still represented by some writers — the connection between a word and its meaning is nothing more than an association of contiguity; this view, says Bühler (Arch. 12, 85) must be regarded as "geradezu naiv".

Recent investigators seem to be unanimous in describing the connection between the word (as a symbol) and its meaning, the meaning relation, as a relation *sui generis*, which cannot be analysed into component elements. "Bezeichnen wir die Beziehung, derzufolge ein Sinnliches einen Sinn in sich fasst, und ihn für das Bewusstsein unmittelbar darstellt, als die der "symbolischen Prägnanz", so lässt sich der Sachverhalt dieser Prägnanz weder auf bloss reproduktive noch auf mittelbare intellektuelle Prozesse zurückführen: er muss zuletzt als eine selbständige und autonome Bestimmung anerkannt werden". (Cassirer, Phil. III, 273). Ach has made extensive experiments in elucidation of the problem (Ach, Begriffsbildung; see also the summary in Willwoll 19 sqq.). His conclusion is, briefly, that the meaning relation comes about on the basis of a causal connection or an association, but that these alone can only lead to the word becoming a signal for another item, carrying what Ach calls *indizierende Bedeutung*. In order to be apprehended as a symbol, to receive *signifikative Bedeutung*, there must be added a new factor, through which the word is made to represent its referent in quite a new way. On the basis of his reports, Ach describes *das Erlebnis der Bedeutungsverleihung* as "ein plötzlich einsetzendes, wie eine Erleuchtung wirkendes Erlebnis, das durch das Auftreten, bzw. durch das Klarwerden des inneren Zusammenhanges zwischen dem Vorwort (the word that is apprehended as a name)... und der Eigenart der Nachwörter (the group of words that are apprehended as referents) gekennzeichnet ist, oder durch die Identifizierung zwischen dem Vorwort und der Objektvorstellung der zugehörigen Nachwörter, und das von lebhaften Lustgefühlen begleitet ist" (Ach, Begr. 196, also quoted Willwoll 25). The attribution of meaning to a *Vorwort* may happen under pressure of a task which the observer can best solve by employing the *Vorwort* to denote the group of *Nachwörter* Secondly, it may come about through a *Benennungsurteil*, as when we are told, "that is a *gostok*"; and, thirdly, as the result of *latente signifikative Einstellung*, our latent tendency to give names to everything. Through any of the three processes, the intrinsic connection as distinct from the exterior association, between significans and significatum is suddenly realized, and a *fusion* (*Verschmelzung*) takes place between them. The result is a complex that Ach calls *fusional unit* (*Fusionseinheit*), and through this fusional unit the word (the symbol) "wird zum anschaulichen und unmittelbaren Träger der Objektvorstellung, und bedeutet so deren Gegenstand" (Ach 299—300). Similar results of other experiments are described by Spearman (211). The name is then the means of mutual understanding, and of denoting, in an unequivocal manner, a fact or set of facts (*Sachverhalt*). It is necessary that the person addressed should have experiences that enable him to understand what the speaker means, that is to say, he should possess similar concepts.

By virtue of the fusion thus described the name also becomes a characteristic of the referent. If some large and heavy cardboard objects are called *gazun*, then the being *gazun* is a characteristic of these objects in exactly the same degree as the being large and the being heavy. And the being *gazun*, *i. e.* the name *gazun*, is even the most important characteristic of the referent, in so far as we are concerned with this name as a means of communication. All other characteristics run the risk of being found unessential in the course of development, but the name never (l. c. 307). This agrees with Wundt's analysis (II 510—511).

Ach's experimental arrangements were artificial in so far as the name was provided. In ordinary discourse the name of a previously unnamed referent has to be found by the speaker, and he generally selects a characteristic of the referent which for some reason is prominent in attention, and applies to it a name that he finds suitable, invented for the purpose or transferred from another referent.1)

3.22. *The Interrelation of the Three Factors.* In order to show clearly the interrelations of the three factors of meaning, I reproduce, with some modifications, the diagram given by Ogden-Richards (p. 14). A similar diagram is given by Gomperz II. 1. 77. The terms in brackets are from Ogden-Richards.


Meaning
(Thought or Reference)
Expresses
(symbolizes, a causal relation)
Is = the subjective apprehension of
(Refers to, another causal relation)
Word
Denotes or Names
(Stands for, an imputed relation)
Referent

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1) These matters have been the subject of much discussion. I may give the following references: Bühler, Bericht 112, Messer, Arch. 175—176, Gomperz II. 1.132 sqq., and 258.1, Maier 248, 342 sqq., Marty, Schr.II.1.67 sqq., Pos 37 sqq., 59 sqq., Fischer, Arch.42, 352 and 43, 37, Selz II 380 sqq., Martinak 9, 49, Schwarz 158, Stern, Psych. 132 and Kindersprache 190 sqq., describing the awakening of the Symbolbewusstsein in children. Ach himself refers to Herbart, Wundt, Stumpf, F. Krueger and H. Maier. See especially Cassirer III 131 sqq.

We have already discussed the relation holding between word and meaning (symbol and thought or reference); that between meaning and referent is treated below. The third relation, that between word (symbol) and referent, is clearly not a direct relation: the word is referred to the referent by the speaker (hearer) and the relation is thus mediated by his thought.[1])

Instead of saying with Ogden-Richards that the symbol "stands for" the referent, and symbolizes the thoughts, I shall make use of the terms already indicated above (3.11): that the word *expresses* the mental content (meaning, thought) and *names* or *denotes* the referent. The mental content is the speaker's apprehension of the referent.

In the following discussion, I confine myself for the present to the cognitive (noetic) elements of meaning, leaving aside the emotional, "non-symbolic" (Ogden-Richards 13) elements, which offer problems of their own, and will be dealt with later (4.15).

3.23. *The Objective Reference.* It has been stated as a fundamental principle that the meaning relation between a symbol and the thing symbolized involves a reference to the latter, to the referent. It is a constitutive characteristic of all mental content that it refers to something: a thought is always a thought about something. "We say of man, mouse, or monkey, that it feels, remembers, perceives, infers, desires, strives, and so forth. Leaving aside the first term, it is obvious that all the rest imply both an activity and an object" (Ward 60). "No idea is a "mere" idea, the cognitive function, *i. e.*, the relation to something which it means, is essential to its very being" (Hoernlé 76).

In the passage just quoted Ward made an exception for feeling, but later on we find him stating that "emotion is always the expression of feeling, and feeling, for the subject that feels, has always some objective ground" (Ward 275). Burkamp (258) thinks that only the pure hedalgedonic feeling might be non-objective, for everything else has a reference to that which is thought. And even the hedalgedonic feeling will be apprehended as referring to an object. We feel pleasure or displeasure at something, and it is only when this relation makes itself evident that the feeling is able to fulfil its regulative function in the psychic process. Shand (64) states that every emotion comprises also a cognitive attitude, and a conative attitude in the sense of an impulse and an end (see l. c. 272). The matter is, however, controversial.

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[1]) Die . . . zwischen den *Aussagelauten* und der *Aussagegrundlage* stattfindende Relation der Bezeichnung ist lediglich eine vermittelte und rein äusserliche, und ihr Wesen besteht nur darin, dass aus dem Vorhandensein der Aussagelaute auf das Vorhandensein der Aussagegrundlage *geschlossen* werden kann. Gomperz II.1.132.

The peculiarity of mental content to be directed, or to refer, to something outside itself should, in strict consistency, be called the referential reference, but for obvious reasons I prefer to call it the *objective reference.*

The objective reference is, according to the principles stated, the one element of meaning that cannot disappear. However vague and evanescent the thought connected with a word is, there must, if the word is understood, exist an objective reference, since a symbol is not a symbol if it does not refer to a thing symbolized.[1])

The constitutive importance of the objective reference is also brought out by the fact that two persons may without difficulty converse about a referent of which they have the most dissimilar ideas, if they only refer to the same object all the time. "What for one is no more than a kodak, develops for the perception of another into a 'reflex, extension, swing-front, focal-plane, anastigmatic hand-camera de luxe' " (Spearman 257). The word cannot reasonably be said to have the same meaning for the two persons, yet they are able to discuss *camera* because they refer to the same thing by the same word, although they do it in different ways.

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[1]) Among authors who have discussed this point I refer to Humboldt, quoted Ach 340, Stout I 47 and 122, II 1, Dewey 75, Maier 152, Husserl II.1.46, 54, 363 sqq., 415 sqq., Marty Unt. 226, 423, 431, Marty Schr. II.1.69, Pfänder 7, Bosanquet I 38, Bühler, Krise 67, and especially Cassirer, Phil. III. 227: "Die moderne Phänomenologie hat in ihrer Definition und in ihrer Analyse der Wahrnehmung nicht sowohl an Kant, als vielmehr an Brentano und an seine Begriffsbestimmung des Bewusstseins angeknüpft. Brentanos "Psychologie vom empirischen Standpunkt" findet das auszeichnende Moment des Bewusstseins, des "Psychischen" überhaupt, im Charakter des "Intentionalen". Ein Inhalt ist "psychischer" Inhalt, sofern er eine eigentümliche Richtungsbestimmung, eine Bestimmung des "Meinens" in sich fasst. "Jedes psychische Phänomen ist durch das charakterisiert, was die Scholastiker des Mittelalters die intentionale (auch wohl mentale) Inexistenz eines Gegenstandes genannt haben, und was wir, obwohl mit nicht ganz unzweideutigen Ausdrücken, die Beziehung auf einen Inhalt, die Richtung auf ein Objekt (worunter hier nicht eine Realität zu verstehen ist), oder die immanente Gegenständlichkeit nennen würden. . . Diese intentionale Inexistenz ist den psychischen Phänomenen ausschliesslich eigentümlich . . . Und somit können wir die psychischen Phänomene definieren, indem wir sagen, sie seien solche Phänomene, welche intentional einen Gegenstand in sich enthalten" (Psych. vom empir. Standpunkt I 115). Wieder ist hier gesehen und aufs schärfste betont, dass Psychisches nicht erst an sich, als isoliertes "Datum", besteht, um erst nachträglich in Beziehungen *einzutreten*, sondern dass die Beziehung bereits zu seiner reinen Wesensbestimmtheit gehört. Es ist nur indem es, in eben diesem Sein, gewissermassen über sich hinaus ist, indem es auf ein anderes *geht*". Cf. l. c. 141 sqq., 365 sqq.

The objective reference is thus the constant element in meanings, however the subjective apprehension (see next paragraph) may vary. Those theorists who have operated in their analysis with word and meaning only, neglecting the referent, have, in seeking for the constant element in the meanings of a word, been compelled to assume an abstraction variously termed *Begriffskern, Kernbedeutung, begrifflicher Inhalt,* etc., which was supposed to recur unchanged in the meaning of a word in all its occasional uses. Nobody has been able to define this *Begriffskern* in a satisfactory manner: it has remained a phantom of logical abstraction. The theory of meaning adopted here takes the empirical view and bases meaning on the referent. The constant element in the meaning of the word *camera,* whenever used, is the fact that the word is referred to one or more of the objects belonging to the category of 'cameras'. That category is an empirical fact, the existence of which a philologist can simply take for granted. It is a problem for epistemology to analyse its origin, formation, and characteristics (cf. 4.16 note).

It is evident that there cannot normally enter into the meaning of the word *camera* any element of thought that is not founded on an actual characteristic of the referent, the camera. But it is not necessary that all such characteristics should be represented in the meaning (see 4.24 on specialized meaning). It is further evident that when the word *camera* is used of different cameras, the meaning changes in correlation to the change of referent. The sentence *there flies a bird* has not the same meaning when used of a fluttering sparrow, of a swallow, an eagle, and so on, in a variety of circumstances. Although the words remain unaltered, the meaning changes with the change of referents.

I conclude that the meaning of a word is determined by the characteristics of the referent, which is thus a necessary factor in the differentia specifica of meaning.

The symbolic function of a word is conditioned by the reference of the word to that which it denotes, and by the fact that the meaning is representative of the characteristics of the referent.

3.24. *The Subjective Apprehension.* It is easy to see that the objective reference is not sufficient to determine the meaning of a word. The perception of a fluttering sparrow may lead to quite different utterances on the part of different persons: *there flies a bird, there is something moving, how frightened it is.* The referent has more than one characteristic, *verschiedene Merkmale* (Wundt), *mehrere intelligible Teile* (Gomperz II. 1. 63. See Husserl II. 1. 47, 418, Marty Unt. 437, Messer Arch. 148, Schwarz 155 sq., Cassirer, Phil. I 44, 252—253; Gomperz, Sinn 83; Paulhan, Revue Phil. 104.40).

Meaning may vary although both word and referent remain unchanged. "Die Vorstellung die ich von Grönlands Eiswüsten habe, ist sicherlich eine andere als diejenige, die Nansen von ihnen hat", says Husserl (II. 1. 418). A speech may make one listener laugh and another weep (Otis 410). The word *fight* is apprehended differently by a pugnacious and a peaceable man (Gomperz II. 1. 223, 225, 231). The same word will often be used of the same referent whatever emotion or conation is to be expressed (Bühler Satz 6; he calls this *das Prinzip der Dingkonstanz*; Nyrop, IV 22, calls it the individuality of meaning, and gives French instances; see also Allers 15). "Keiner denkt bei dem Worte gerade das, was der Andere, und die noch so kleine Verschiedenheit zittert, wenn man die Sprache mit dem beweglichsten aller Elemente vergleichen will, durch die ganze Sprache fort" (Humboldt § 65. Cf. Marty, Unt. 436 note, and the instance of the kodak in the preceding paragraph).

Such variations are explained by the circumstance that the referent generally has more than one attribute or characteristic (*Merkmale, intelligible Teile*). In different contexts different attributes of the referent will be relevant to the situation and the speaker's purpose, and therefore different items will be predominant in the speaker's attention (See 4.24 on specialized meaning). Further, as in the instance of the kodak, different persons will be acquainted with a greater or smaller number of those characteristics, a circumstance that greatly influences their apprehension of the referent. Meaning is essentially personal. What a word means depends also on who uses it, when, where, why, in what circumstances, with what aim, with what success. "We should therefore not be content with the conventional meaning of a word, but continue the analysis with the meaning of the man who uses it" (Schiller 385 sqq. Cf. Wundt II 505—506, Schwarz 155—156).

It is evident from these arguments that the subjective apprehension is an indispensable determining factor of meanings. In fact, the subjective apprehension of the referent, what the subject thinks and feels about the referent, is that portion of the simultaneous mental content in which we have to seek the meaning of the word by which the referent is denoted.

The expressive function of the word is conditioned by the fact that one determinant of meaning is the subject's apprehension of the referent.[1])

3.25. *The Traditional Range.* If two men are looking at, and speaking of, a boat, they may be of opinion that it is a fine boat, or perhaps that it is a very bad boat. Their opinion is mental content referring to the boat (the referent), and it is part of their subjective apprehension of the boat, but it does not belong to the meaning of the word *boat,* which is a purely cognitive appellation. If they want to express their total apprehension of the boat they must have recourse to other words, in due syntactical order.

On the other hand, if we are speaking of a person's *scrawl* or *scribble,* or *cackle* or *chatter,* we are not only naming his hand-writing or conversation, but we are also expressing an opinion of them.

Such differences, as well as others of a similar type, are due to the origin and history of the individual words, which, in the course of linguistic development, have led to a consensus in the speaking community concerning the referents that a word can normally be used to denote, and the mental content (the subjective apprehension) that it can normally be used to express (see 2.11 on the language system). Each word has a traditional sphere of application; I shall call it the *range* of the word. The term has a purely quantitative import, and it is not equivalent to the meaning of an isolated word, or to the general concept that the word may denote (see on these points 4.22 below). The range of the word is either the totality of referents that may be denoted by it, the *referential range,* or the totality of meanings that it can express, the *semantic range.*

The instance of the *boat* shows that the objective reference and the subjective apprehension are not sufficient to determine definitely the meaning of a word, distinguishing it from all simultaneous mental content that does not belong to the meaning. It is necessary to introduce the traditional range as a third, and final, determining factor.

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[1]) The statement that the referent may remain unchanged although words and content change, may require some qualifications. Otto (41) accepts this statement, quoting Husserl and Marty. See also Ward 32 and 60. But cf. Allers 16; Grünbaum, Arch. 36, 438, 441: 5.

Any mental content simultaneously present in mind, but not falling within the traditional range of the word as apprehended by the user, does not belong to its meaning, however closely it may be associated with the word or the referent. It is necessary to add, "as apprehended by the user", because it is very seldom that the *total* range of a word is present in mind (cf. 4.22). This is equivalent to saying that to the meaning of a word belong only those elements of mental content that actually are expressed by it.

The range of a word is normally stable, but it may be affected by various factors, so that items are added or deducted. An addition to the range is a sense-change.

The essential importance of the traditional range and its relative stability is evident from the fact that it is the indispensable condition for one of the three functions of the word: the communicative function (see 2.12 above). It is obviously necessary for speaker and hearer to have approximately the same notion of what a word may denote or express, if they are to have any chance of mutual understanding.

The existence of a traditional range for all words in a language makes the language a normative system for the meanings, and it is this fact that makes semasiology a branch of linguistics; it would otherwise fall under the heading of psychology, since the two other determinants, the objective reference and the subjective apprehension, are purely psychological in nature (cf. Ahlmann 73, Cassirer, Phil. I 22).

The totality of traditional ranges in a language is an element of the language system (2.11). I have already pointed out that each individual belonging to a speaking community must conform to the prevailing language system if he wishes to be understood. The correlation between the transsubjective normative system, and the individual realizations of it, is not complete, but reaches a comparatively high standard (Ahlmann 87).

3.26. *Summary. A Fourth Factor?* We have arrived at the conclusion that there are three determinants of meaning.

We have found, in the first place, that the objective reference is an indispensable element in any meaning, and that the qualitative characteristics of meaning are conditioned by the actual characteristics of the referent which the word is employed to denote. This factor conditions the symbolic function of the word.

We have found, secondly, that the meaning of a word is determined also by the subject's apprehension of the referent that the word is employed to denote, that is to say, the subject's thoughts and feelings with regard to the referent. This factor conditions the expressive function of the word.

We have found, thirdly, that the traditional range of a word serves to discriminate its meaning from concomitant elements of mental content, or mental context. The meaning of a word in speech normally lies within its range. This factor conditions the communicative function of the word.[1])

I stated above that the purposive function is a characteristic of the utterance, perhaps of the sentence, but not of the word (2.13). We have here a possibility of testing this view. If the purposive function was a characteristic of the word, it is reasonable to assume that it would, like the other three functions, be directly correlated to a determinant of meaning. The three determinants of meaning described in the preceding paragraphs would not then form an adequate differentia specifica; we should have to add the relation of meaning to listener as a fourth determining factor. As fas as I can see, this is not the case. It is true that the thought of the hearer has a great influence on what is said and how it is said (cf. 4.155 and 5.52). The audience influences the speaker's choice of words, his tone, tempo, and gestures, in short, the way in which speech, as an instrument for the purposive function, is handled. The attitude of the speaker towards referent and hearer is the basis of this function. It must unavoidably influence the meaning of the utterance as a whole, which the hearer gathers, not only from the meaning of the single words (see 6.33) but from all concomitant circumstances. It is in this combination that the purposive function is involved. Any influence that it might exert on the word-meaning would thus be primarily a matter of subjective attitude and that is a factor already included in the arguments.

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[1]) It is not uninteresting to quote here Humboldt's statement, "In dem Begriffe liegt ein Dreifaches, der Eindruck des Gegenstandes, die Art der Aufnahme desselben im Subjekt, die Wirkung des Worts, als Sprachlaut" (Versch. § 61). Cf. also Delacroix' statement that language has its roots in three factors: the conditions of communal life, the laws governing the expression of emotions, and the structure of human intelligence. They are fundamental and irreducible (Delacroix 47). If we substitute "mental content" or perhaps "thoughts and feelings" for "emotions", the three factors given by Delacroix correspond to those enumerated above.

3.27. *Definition.* I conclude that the meaning of a word, in any individual case of actual use in speech, is completely determined by its relation to the three factors, word, referent and subject. Each of these three factors conditions one of the three functions of words. No other determinant is necessary for the definition of meaning, but all three must be embodied in the definition. I propose the following formulation:

The meaning of a word — in actual speech — is identical with those elements of the user's (speaker's or hearer's) subjective apprehension of the referent denoted by the word, which he apprehends as expressed by it.

The definition is applicable to prefixes, suffixes, and stem syllables, in so far as these carry a distinctive element of meaning.

It is not applicable to speech as a whole (utterance,) owing to the purposive function not being included.

It is further not applicable to signals or substitute signs (2.22).

It will be the task of the following chapter to elaborate this definition by filling in the outlines and discussing the individual modes and variations in which meaning appears.

CHAPTER IV

ANALYSIS OF MEANING

4.1. Psychic Elements and Categories of Meaning.

4.11. *Psychological and Logical Points of View.* The meaning of a word, as defined in the preceding chapter, may be analysed from various points of view.

We may study it with regard to the psychic nature of the mental content constituting it. This may conveniently be called the *psychological* point of view.

We may study the meaning with regard to its notional content, and to the different elements that constitute this content. For instance, we say that *swift* means "moving, or capable of moving, at high speed". For lack of a better term I shall call this the *logical* point of view. (See especially Gomperz II. 1.2 and 6 sqq., Moore, Mono. 184—185).

The following paragraphs will serve to show what belongs to one or the other of these aspects of meaning, which it is very important not to confuse. I shall first give an account of the psychic elements of meaning.

4.12. *Cognitive and Emotive Elements.* The first distinction to be made here is that between cognitive and emotive elements. "In actual discussion terms are used at least as much for the sake of their suasory and emotive effects as for their strictly symbolic value... It is often, indeed, impossible to decide whether a particular use of symbols is primarily symbolic or emotive... Most terms of abuse and endearment raise this problem, which, as a rule, it is, fortunately, not important to settle. The distinction which is important is that between utterances in which the symbolic function is subordinate to the emotive act and those of which the reverse is true. In the first case, however precise and however elaborate the references communicated may be, they can be seen to be present in an essentially instrumental capacity, as means to emotive effects. In the second case, however strong the emotive effects, these can be seen to be by-products not essentially involved in the speech transaction. The peculiarity of scientific statement, that recent new development of linguistic activity, is the open avowal of its restriction to the symbolic function" (Ogden-Richards 226—227).

The term 'symbolic' corresponds to what I have called 'cognitive'. It is true that any cognitive element of meaning must be, by definition, equivalent to an element of the language-user's apprehension of the referent, and in so far is representative or symbolic of the latter. But I prefer to use the term symbolic with regard to the word, the verbal symbol, and to speak of cognitive elements in the meaning.[1])

4.13. *Thought and Imagery.* With regard to the cognitive elements of meaning and of mental content in general, it was for long an accepted opinion that they were composed of sensations and their reproductions, the images. The images might be comparatively vivid and clear, or they might be faded and highly transient.

This view was at no period entirely unopposed, and about thirty years ago psychologists began to pay particular attention to the problem, almost simultaneously in Germany (the Würzburg School, O. Külpe and his pupils), in France (A. Binet) and in the United States (Woodworth, see Psych. Rev. 22, 1915). These scholars asserted the existence of "imageless thought" (des pensées sans images, unanschauliches Denken) as a third kind of mental content, essentially distinct from images, although like them of a cognitive nature. Imageless thought is the main constituent of meanings and of the higher thought processes in general.

On the other hand, Titchener, G. E. Müller, and other scholars, assert that when observers report after introspection that they found nothing in their mind except an awareness, a knowledge, of some kind, this is due to their inability to distinguish the visual, auditory or motor imagery, which, although probably very fugitive, was really present to them.[1])

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[1]) "In general, we may say of any act that is being performed that it is a certain specific sort of act. It has an end; the animal is engaged in doing *something*. The end may be more or less remote, and the behavior leading up to it more or less involved, but it is generally pertinent to ask the question, *What* is the animal doing? In addition to this specific character, behavior has a particular form. The animal is not only doing *something*, but he is doing it in a particular *way*. In so far as behavior can be characterized as even crudely intelligent, it involves a certain adaptation of means to an end. These two aspects of behavior form the basis for the distinction between *affection* on the one hand, and *cognition* on the other. It is the affective properties of situations and things which determine the ends of action, and in the most general sense of the term it is the cognized properties and relations which determine the particular form which the action takes, the means by which the end is achieved. Affection and cognition then, in the sense in which the terms are here used, are aspects of all behavior" (Laguna 190).

It is evident that when we are speaking of concrete things, especially if they are familiar to us, visual images may, and often do, accompany speech. But even this is no proof that the meaning of the words is constituted by the images (see next paragraph). And with regard to abstract words and phrases, how could the meaning of *philosophy*, *nothing but*, *nevertheless*, *although*, *differential calculus*, etc. be carried by imagery of any kind whatever? (James II 52, Husserl II.1. 62—63). Explanations in terms of muscular sensation or innervations, whether in the articulatory organs or in other parts of the body (cf. 3.14), seem to many scholars entirely unsatisfactory.

To me, the "imageless" theory appears attractive, but it is fortunately not necessary for my purposes to go into the matter in detail. I shall speak of thoughts and images, denoting with the latter term undoubted images, mainly visual; and the reader may, as he pleases, interpret my term 'thoughts' as signifying either imageless thoughts, or imagery of a peculiar type. There are evidently great individual differences with regard to imagery, which may account in part for the conflicting theories.[2])

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[1]) Cf. for instance the following quotation from R. H. Wheeler, Development 233: "In every stage kinaesthesis is the core of the phenomenon which we call meaning . . . In the writer's case, at least, meaning has not been described until kinaesthesis is taken into account. It is quite probable that pure meanings, so-called, are in reality masses of diffuse muscular sensation which the reagent has not succeeded in recognizing and describing". But it is very difficult to get a clear idea of what Wheeler really means by 'meaning'.

[2]) I may refer to the following works, among a much greater number: Spearman 175 sqq., (with very useful discussions), Moore, Mono.101 sqq., 154, 234 sqq., 254, Moore, Psych.Rev.22 and 24, Stout I 83, II 194, 211, Titchener, Lectures 9 sqq., R. M. Ogden, Am. J. of Ps. 34, Kantor, Am.J.of Ps.32, 231 sqq., Ogden-Richards 150 sqq., Laguna 177 sqq., 198, Pillsbury-Meader 100 sqq., 152 sqq., 162, 183, Binet, passim, Bourdon 189 sqq., Husserl II.1.65 4), 61 sqq., Gomperz II.1.170 sqq., 180 sqq., 241, G. E. Müller III 520 sqq., Watt, Arch. 4, 433, Messer, Empf.u.Denken 92 sqq., and Arch. 85, 175 sqq., Bühler, Ber.106, and Arch.9 298 sqq., 317, 350 sqq., 361, Marbe, Beitr. 493 sqq., Lindworsky 91 sqq., Stählin, Met.38, Allers 11 sqq., Poppelreuter 325 sqq., Meyer, Stilgesetz, passim, Pick, Sprachstör. 183, Müller-Freienfels, Psych. d. Kunst I 160 sqq.; Willwoll 64 sqq. — Some of these writers take up an intermediate position between the two extremes briefly indicated above.

4.14. *Images.*

4.141. *Useful, Inadequate, and Irrelevant Images.* The part played in our mental process, particularly in meaning, by auditory and motor images seems at present to be so vaguely known or at least so disputed, that it is impossible to make any definite statements on the subject. I shall therefore leave them aside, and confine myself to a discussion of visual images, by which term I mean images plainly showing their character as such. They have been the subject of eager study, and are comparatively well known.

Visual imagery in many cases clearly serves as an aid to understanding, by providing illustrations and making the realization of the referent more vivid and tangible. In one of Stählin's experiments, an observer reported that the word *holy* was accompanied by the image of a temple. For another observer, the idea of *friendship* was illustrated by an image of Abraham, because a sermon on Abraham as God's friend had once made a deep impression on the observer (Stählin, Unt. 166 sqq.). Other instances of useful imagery are given by Selz (II 120; cf. Willwoll 72 sqq.). The genus proximum for *star* was found by one observer with the help of a visual image of a star against a dark background; the quality of brilliancy noted in the image led to the correct solution: *luminous body.* (See 6.22 on imagery as mediating the comprehension of words).

As an instance of inadequate imagery we may quote a case from Binet (90). He was speaking to one of his observers (Marguérite) about their dog, which had recently died. He said: "what a pity that all animals without exception have to die!" Then he asked, "Quelles images?" Marguérite was a little surprised, and at first said that she had had no images. After some reflection, however, she remembered having had a faint image of a black, shrunken insect. It is evident that this is a very inadequate illustration of the speech made (Other instances are given by Bühler, Ber. 110, Allers 1, Selz II 124, 163).

Images, both of words and things, may be altogether discrepant. (Spearman 183, who also quotes Binet). Other writers assert that images are never irrelevant. (See Comstock and Tolman, and cf. Willwoll 68).

Disturbing imagery is instanced in the following report from Stählin. The experimenter read a text containing the passage: "Gleichwie aus vielen Kohlen ein grosses Feuer und daraus eine richtige Flamme entsteht, die in die Höhe, weit über die Kohlen hinflackert, also soll der Mensch sein Gemüt durch alle Gedanken, Bilder und Werken seiner untersten und obersten Kräfte hindurchdringen lassen und in die Höhe weit über sein eigenes Können und Wirken sich emporschwingen in jene unbegreifliche Höhe der überwesentlichen Gottheit selbst.'' Several observers report that the image of coal and fire occupied them so much that they had difficulty in grasping the import of the passage. One of them stated that at first he saw only coal, but no fire, then a coal-yard in K. Street, smoking but not burning, then an image of the fire in the Meiningen Theatre, and finally of a lark rising towards the sky! (Stählin, Exp. Unt. 129, 136, 149; cf. Bühler, Ber. 123 sqq. Willwoll 70 sqq. and Delacroix 385 sqq.)

Stählin (l. c. 161 sqq.) arrives at the conclusion that in many cases imagery is necessary, or at least valuable, for comprehension. According to Betts (94 sqq.) images occur especially when the thought process encounters an obstacle, and images are resorted to as a help for overcoming it. Effective and successful thinking, according to Betts, is with most persons accompanied only by a minimum of images. Burkamp (Kaus. 262) also states that images are fewest when the mental work is most energetic. This is due to the fact that images require a certain time to develop, which time is not always available.

The essential difference between useful imagery and disturbing imagery seems to be the circumstance pointed out by Stählin and others, that images which are determined by the import of a speech and stay within its sphere of meaning, serve to illustrate and elucidate it. (Cf. Selz II. 184—185, Gomperz II. 1. 241). But disturbing images are nearly always irrelevant to the trend of thought expressed in a speech. Images of the former kind may, however, also have a disturbing effect if they become too obtrusive, and thus attract too much attention and give a disproportionate prominence to some detail.

I conclude that, as Delacroix states, the image is fragmentary, arbitrary, and accidental. ''Elle symbolise le travail mental, plutôt qu'elle ne l'exprime. Elle n'en représente jamais que des fragments. Elle survient surtout quand l'opération est effectuée ou près de s'effectuer; ou bien quand il est nécessaire de la jalonner de points de repère, ou quand une difficulté survient. Elle abonde aussi quand la pensée se détend, se laisse aller'' (Delacroix 385). Images are conditioned by the thought process and presuppose comprehension. An image receives meaning only through being interpreted and related to other images, words, or notions (l. c. 386).

4.142. *Images as Signs, Meaning, or Context.* Head (Aphasia I 520) has made an interesting distinction between two kinds of imagery which behave differently in disorders of speech. "In persons with a strong visual memory all the processes of thinking are accompanied by and at times essentially composed of more or less vivid and detailed imagery. If I think of a horse, it is not the word in any form which springs into my mind, but a picture of a horse. This image assumes a familiar general character, which usually represents a horse to me; it is in reality a nominal symbol or a visual noun. If it has been aroused by something I have heard or read, the figure is suitably varied in colour, form or posture in accordance with the descriptive details, and in this way reproduces adjectival meaning. Such images stand in the place of words and as such tend to be affected in aphasia.

On the other hand, during spontaneous thinking visual images may appear in a sequence suggested by association, or corresponding to the order in which the objects were originally perceived. Such images form perceptual data, which may remain unaffected in disorders of speech .... Even a vivid and accurate series of visual images is insufficient alone for constructive and logical thought" (cf. 5. 21).

Other investigators agree that images alone cannot carry a sequence of logical thought, but it seems that they can function in some way as signs. Like a verbal sign, an image may carry a certain meaning (Pillsbury-Meader 157, 182). Moore concludes from his own experiments that an image has no meaning in itself but must be interpreted, which can be done only when sufficient data are available (Moore, Psych. Rev. 22, 177 sqq.) "The interpretation of the image is a *knowing*. It is something which follows the awareness of the image, just as understanding follows the sensations involved in perception" (l. c.). Selz asserts emphatically that images are evoked by the purposive thought-processes tending towards the solution of the task in hand (Selz II 184—185. Also Ogden-Richards 150). This agrees with Moore's conclusion that meaning is prior to imagery. And it seems reasonable that, in the instance quoted from Selz, the word *star* could not evoke the image of a star if we had not first comprehended the word, that is to say, if we had not become aware of its meaning (cf. 6.22).

I have no evidence from other sources to confirm Head's statement that images can function as signs independently of words, but it does not seem unreasonable to assume that they can. In general, they must be assumed to appear together with words, as supplementary signs, a function that is amply corroborated by normal psychology. The image "either does not explicate the concept at all, or it does so in an utterly inadequate way. It may indeed fulfil a useful function in the thought-process, but this function belongs to it as a supplement of the word, not as an explication of the meaning. It is a component part of the sign rather than a presentation of the object signified. If, in reading a treatise on political economy, the word *wealth* calls up in my mind the vague picture of a bale of goods, this picture is, to say the least, a hopelessly inadequate explication of the concept of wealth. But it may co-operate with the word in fixing and detaining the mental system associated with this word. The mental imagery that clusters round a word, and supports it in its function, constitutes what has been called the 'inner speech form' " (Stout II 211, and similarly I 85).¹)

The researches on the process of understanding, quoted in 6.22 below, show that meaning may be represented by imagery, and that, just as in the case of a word, sign and meaning may fuse. The image seems to *be* the referent itself. In these cases, too, the word is present.

The usefulness of images as signs is limited by their inability to perform the expressive and communicative functions: they remain within the confines of the individual mind.²) As soon as the word appears on the scene, which naturally happens in most cases, the image is therefore liable to be relegated to the position of a supplement, more

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¹) Stout, in the passage quoted, speaks of imagery clustering round the *word*, fixing and detaining the mental system associated with the *word*, and so on. I think we should perhaps substitute the *referent*, since a word may have more than one meaning. For a speaker, the awareness of the referent is at least not posterior to the word, and an image may be prior to it. For the hearer, as pointed out above, the word must normally be understood in order to call up an image, that is to say, the hearer must know what referent it denotes.

²) "The *image* . . . just because it is bound up with a particular response of bodily adjustment, can control only a direct sort of behavior, *i.e.*, behavior which is determined by the relations of things *to the actor*. Behavior which is indirect, in that it is determined by the objective relation of things or of persons *to each other*, and which issues in the production of an objective state of affairs of mediate utility or interest to the actor, must be controlled by something other than the image" (Laguna 298).

or less useful, and it is thus evident that images are not on a par with verbal signs.[1])

When images are not signs, are they to be reckoned as elements of meaning or of context? If we take the image of a horse, illustrating the thought of a horse, it undoubtedly falls within the first two criteria of meaning: it refers to the referent, and it belongs to the speaker's subjective apprehension of it. But it is excluded by the third criterion, for it is not expressed by the word. Normally at least, the speaker does not indicate in any way what images may have accompanied his train of thought, and it is not probable that the hearer will spontaneously evoke the same images. If we accept the definition of verbal meaning given in the preceding chapter, we can scarcely avoid the conclusion that visual images must belong to context. This agrees with Stout's position. When an image of Abraham illustrates the meaning of *friendship*, such an image cannot belong to the meaning of the word, although it may be useful to the speaker in fixing the notion. Irrelevant imagery is not even useful.

The conclusion is that images seem to belong to mental context (on context, see esp. 6.32). They may sometimes function as supplementary signs.[2])

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[1]) Cassirer also emphasizes the superiority of the word as symbol: "Das Sprachwort unterscheidet sich eben darin vom sinnlichen Anschauungsbild, dass es sozusagen mit keiner eigenen sinnlichen Materie mehr belastet ist. Betrachtet man es seinem blossen sinnlichen Bestand nach, so erscheint es als ein Verschwebendes und Unbestimmtes: es ist ein Spiel von jedem Hauch der Luft. Aber gerade dies Ungreifbare und Flüchtige an ihm begründet zugleich — vom Standpunkt der reinen Darstellungsfunktion gesehen — seine Überlegenheit über die unmittelbar-sinnlichen Inhalte. Denn das Wort besitzt sozusagen keine für sich bestehende selbständige 'Masse' mehr, mit der es der Energie des beziehentlichen Denkens Widerstand leisten könnte. Es ist für jegliche Form offen, die der Gedanke ihm aufprägen will" (Cassirer, Phil.III 383—384).

[2]) Marty's position with regard to imagery is not clear. He defines meaning as "dasjenige psychische Phänomen, welches der sprachliche Ausdruck im Hörer wachzurufen bestimmt ist" (Funke, Sprachform 20—21). As far as I have noticed, Marty discusses imagery only with regard to transferred and metaphorical expressions, where he calls it *figürliche innere Sprachform*, and only with regard to the hearer, in accordance with his usual practice and with the definition just quoted. Funke (l.c.26) gives as an instance the word *lion*, applied to a heroic person. In the hearer, the word at first evokes the image (*Vorstellung*, which I suppose is to be understood as visual image), and through the mediation of the image of a lion we get to the *Vorstellung* (image?) of a man of certain qualities.

4.15. *Emotional and Volitional Elements of Meaning.*

4.151. *Preliminary Remarks.* Human *speech* in its earlier phases was no doubt primarily emotive; that is the case with children's speech. The cognitive element was present from the beginning, and in some styles at least, it now plays the most important part. But nevertheless there is some sort of emotive element in all speech; if a thing were quite indifferent to me I would not say it (Delacroix 374).[1])

The emotional elements of meaning correspond to the subjective attitude taken up by a speaker or hearer towards the referent and the interlocutor (cf. Ahlmann 77). The attitude may vary indefinitely: the same referent may be spoken of with doubt, concession, desire, questioning, pleasure or the reverse, contempt, irony, derision, confidence, and so on. How these varying attitudes are expressed and how they influence the meanings of the words used is an immense and complex problem that has as yet scarcely been touched by scientific investigation. It is therefore impossible to give anything like an adequate account of the matter. I shall have to confine myself to an account of some distinctions which have proved of essential importance in the analysis of meanings and sense-changes (cf. Bühler, Ber. 112 sqq. and especially Ahlmann 51 sqq.).

4.152. *Methods of Expressing Emotive Elements.* When we turn to emotive elements in the meanings of *words* — the statements of the preceding paragraph apply to *speech* — we have to keep in mind not only the distinction between word and speech, but also that

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The image (of the lion) is not an element of the meaning of the word *lion*, but a means of evoking the meaning (in this case the thought of a heroic man), according to the laws of association (l.c.27). Marty's analysis of the process of understanding will be criticized below (11.59). It will be found that in cases like the one quoted an image of the lion is probably not a necessary, or even a normal, phase of the process; on the contrary, an image representing the original meaning of a metaphorical word would in most cases probably be a disturbing factor.

[1]) According to Shand, an emotion always involves "(1) a cognitive attitude, in the sense of a perception or a thought, (2) a conative attitude, in the sense of an impulse and an end, and (3) a feeling-attitude, of a peculiar kind which we cannot fully analyse" (Shand 64). "An emotion is an attitude of the mind — a perception or a thought, not merely sensation . . . All moods of emotion arise at first without a defined object, but there is an inherent tendency in them to search for one, because an object is necessary to organize and direct their impulses" (l.c.272. Cf. Ward 42 sqq., 275 sqq.; K. O. Erdmann 103, Sechehaye, Progr. 89, Moore, Mono. 98, Stout I 272, Pick, Sprachstör. 117 sqq.

between symbols and signals (2.22). I am concerned primarily with the former.

Verbal symbols may serve to express emotion in two ways. (1) The emotion (the subjective attitude) may be the referent of the word, as in *I am very much annoyed at your coming here*, where *annoyed* denotes the emotion, of which the hearer is thus directly informed. (2) Some words possess an emotive colouring as a permanent element of their meaning; instances are relatively numerous; compare *horse* and *steed*, *poor young man* and *wretched wight*, *house* and *hovel*; *bright*, *gaudy*, *gorgeous* and *flashy*, where different attitudes to identical referents are expressed. Fr. *frapper* denotes the action of striking, *battre* implies that the action is brutal or dishonourable; *animaux* are a category of living beings, *bêtes* are of interest to us: *pauvres bêtes!* Latin *niger* is black colour, in contrast to *albus; ater* is black and gloomy, like spilt blood or the dreary night. The Nile, with its fruitful slime, is *niger*, but the infernal Styx is *ater* (Marouzeau 561 sqq. with instances also of emotive expression through word-order or accentuation; cf. Bally I 170 sqq.).

In both these cases, the emotive elements belong to the meanings of the words (cf. a different analysis in Ogden-Richards 356 sqq.). In the first case, where the emotion is the referent, the apprehension of the emotion must be a central element of meaning (cf. 4.16). In the second case, the emotive elements may be central or peripheral.

Signals (as described above 2.22) may be verbal or non-verbal, and are probably our most important instruments for expressing and communicating emotions. The same emotion that is expressed in the sentence *I am very much annoyed at your coming here*, may also be adequately expressed by the two words *You here!* spoken with the appropriate tone, and perhaps accompanied by appropriate gestures. The same words, with different tone and gestures, may express fear, pleasure, surprise, and so forth. The signal system runs parallel with the symbols and is able to turn identical symbols into expressions for very different emotions. (Cf. Bally I 7, and Ahlmann 76).[1]

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[1] Husserl excludes from *Ausdrücke* (approximately equivalent to what I have termed symbolic signs) "das Mienenspiel und die Geste, mit denen wir unser Reden unwillkürlich und jedenfalls nicht in mitteilender Absicht begleiten, oder in denen, auch ohne mitwirkende Rede, der Seelenzustand einer Person zu einem für ihre Umgebung verständlichen "Ausdrucke" kommt. Solche Äusserungen

The non-verbal signals belong to the spoken language. "In written language many of the most obvious signs for these attitudes are necessarily lost. Manner and tone of voice have to be replaced by the various devices, conventional formulæ, exaggerations, under-statements, figures of speech, underlining, and the rest, familiar in the technique of letter-writing. Word-order is plainly of especial importance in this connection" (Ogden-Richards 357).

From the point of view of verbal meanings — my point of view in the present study — signals and their meanings belong to context.

The third instrument of emotive expression is phrase meaning (cf. 4.27). The interrelation of word meaning and phrase meaning is very little known, but it seems probable that a very large proportion of emotive expression through symbolic means belongs to phrase meaning. Changed word-order, aposiopesis, ellipsis, redundancy, are all of them regular methods for the purpose.

The distinctions which I am seeking to establish here are especially difficult owing to the tendency of emotion to permeate all simultaneous mental content.[1] Nevertheless, I believe that the distinction is necessary, and that it is useless to discuss whether the emotive elements belong to meaning or not, without making clear whether we are speaking of the meanings of words, of phrases, or of signals. In accordance with my general programme, I confine myself to word meanings.[2]

4.153. *Emotion and Communication.* We have to note a peculiarity

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sind keine Ausdrücke im Sinne der Reden, sie sind nicht gleich diesen im Bewusstsein des sich Äussernden mit dem geäusserten Erlebnissen phänomenal eins; in ihnen teilt der eine dem anderen nichts mit, es fehlt ihm bei ihrer Äusserung die Intention, irgendwelche "Gedanken" in ausdrücklicher Weise hinzustellen, sei es für andere, sei es auch für sich selbst, wofern er mit sich allein ist. Kurz, derartige "Ausdrücke" haben *eigentlich keine Bedeutung*. Daran wird nichts geändert dadurch, dass ein zweiter unsere unwillkürlichen Äusserungen (z.B. die "Ausdrucksbewegungen") zu deuten, und dass er durch sie über unsere inneren Gedanken und Gemütsbewegungen mancherlei zu erfahren vermag. Sie "bedeuten" ihm etwas, sofern er sie eben deutet; aber auch für ihn haben sie keine Bedeutungen im prägnanten Sinne sprachlicher Zeichen, sondern bloss im Sinne von Anzeichen" (Husserl II.1.31).

[1] Das Gefühl aber ist jederzeit auf alles unmittelbar bezogen, was gleichzeitig oder in erlebter Nachbarschaft damit vorgefunden wird. Krueger, Arch.65, 114.

[2] Several authors have contended that the emotive elements do not belong to meaning: but what kind of meaning do they refer to? See Ahlmann 50 sqq.; Noreen, Betr.207, criticized by Ahlmann 55 sqq.

of the emotive elements of meaning with regard to the communicative function. No element of mental content can be directly communicated to a hearer: it must be phrased in speech, a totally different medium, and be translated back into thoughts. Nevertheless, in so far as speech is symbolic of facts, and so expressive of cognitive knowledge, adequate formulation leads to a reasonably exact reproduction of the same knowledge in the hearer's mind. The speaker's *attitude* towards the referents is another matter; the hearer is informed of it, say, by verbal means, but whether this leads to a reproduction of the same attitude in the hearer is not at all certain, and depends not on the adequacy of the formulation, but on quite other factors. Making use of the distinction between proposition and judgement (cf. Husserl II. 1. 78) we may say that the import of the proposition is communicated, but whether the hearer accepts the judgement depends on him, not on the speaker. If speaker and hearer are actuated by similar motives in respect of the referent, or if the speaker has some influence over the hearer, the latter's emotions are likely to be stimulated in sympathy. A perceived excitement is to some extent contagious (cf. 6.5 and Ahlmann 77 sq.). On the other hand, the hearer may consider, for instance, the speaker's annoyance at his arrival entirely uncalled for, or even ridiculous; or he may consider the referent of *hovel* quite a decent little house. Such differences may be due to different factual circumstances. Perhaps the speaker is a man who is planning to live in the hovel, while his interlocutor is the landlord's agent, intent on making a good bargain about the rent. Another not unfamiliar instance is that of the pathetic orator who fails to enlist the sympathy of his audience, or moves it to derision and laughter. The possibilities are numerous. It makes no difference for the hearer whether the verbal symbols through which he learns the speaker's attitude function in the first or the second of the two ways described at the beginning of the preceding paragraph. (Cf. Maier 336).

4.154. *The Sources of Emotive Elements: Permanent Elements.* Emotive elements in verbal meaning are either permanent or incidental; the importance of this distinction will be evident in the chapter on adequation (ch. 14).

Permanent emotive elements are those that normally belong to the semantic range of the word. The subjective attitude of a speaker employing such a word is apprehended by a hearer without the help of further signs; *chatter* referring to a person's talk is at once understood as contemptuous. Permanent does not mean eternal, but only relatively permanent, common to a group of speakers during a period of time; changes may take place, but they are slow and general. *Corn Laws, Home Rule, Women's Suffrage,* are terms that have all of them at some time been charged with emotional import for many English speakers; at present they are less explosive (cf. 8.4).

The source of permanent emotive elements may be a referent possessing characteristics of more or less constant emotional value to the speaking community. Here belong words denoting emotions, affective qualities, etc.: *fear, anger, furious, indignant, to hate, to love,* and so on. Another group consists of words like *death, resurrection,* etc., the referents of which normally have an emotional value; German instances are given by Meyer (Stilgesetz 160): *Glockenklang, Rauch und Qualm, Ruhe und Rast.* (According to Ahlmann 76 the emotional colouring here belongs only to the referent, not to the word. Cf. Britan 49, and Oertel 299). A third group consists of words having an emotional tone only in certain contexts, *i. e.,* when their referents are apprehended in certain aspects. Sometimes the same word is used for the referent in any aspect, emotional or not; thus, *father* may have a purely cognitive, "genealogical" meaning, or it may be highly affective; German *Weib* is either poetical or low (Oertel 200. Cf. 4.24 on specialization). Sometimes different words are used for the referent in different aspects, as *house* and *hovel,* and the other instances quoted in 4.152. (Cf. Ahlmann 77, and Meyer, l. c. 161: *Pferd: Klepper: Ross: Rösslein*). Subjunctive and optative mood belong here, expressing different attitudes towards the referent, that is, the action denoted by the verb.

The difference in attitude expressed by the two words *house* and *hovel* is not necessarily a difference between a speaker and a hearer. It may be a difference between groups of people. Meillet points out that the French verb *s'habiller* has not precisely the same shade of meaning for men as for women, because the import and character of the action denoted are not identical for the two sexes (Meillet, Ling. 245). Similarly a pugnacious man will regard every chance of a fight with pleasure, while the peace-lover will consider the prospect with quite different feelings; and the meaning of a statement concerning an impending fight will be correspondingly different for the two (cf. Gomperz II. 1. 223). Ahlmann (78) points out that some words, as *bour-*

geois and *capitalist,* have a different emotional colouring for different classes in the speaking community.

It has already been noted that the same speaker may react differently to a referent on different occasions, and possibly for that reason use different words to denote it.

When words denote a referent that has a more or less permanent emotive colouring, the words themselves become intimately associated also with that element of their meaning, and the comprehended word consequently possesses a permanent emotive colour. Meyer (Stilgesetz) thinks that words with a really permanent emotional colour are comparatively few in number, and quotes as German instances *Maid, Leu, Minne, minniglich, Kämmerlein,* and other diminutives. (Further instances, see K. O. Erdmann 110 sqq.) The speaker chooses words of this kind *because* he is emotionally adjusted; the emotional colouring of the words is familiar to the hearer, and he is thus informed of the speaker's attitude — which he may share, or not, according to circumstances. It is a task for special historical research to ascertain the reasons why a word has an emotional colouring.

4.155. *The Sources of Emotional Elements: Incidental Elements.* The sources of the incidental emotive elements of meaning should obviously be sought outside the triangle of subject-referent-word; or, since an emotional element corresponds to a subjective attitude, they should be sought in the speaker's or hearer's attitude to the interlocutor or towards outside facts and circumstances. As already stated, an emotion has the peculiar power of permeating all simultaneous mental content, and it is for this reason that the attitude towards the interlocutor is capable of influencing the apprehension of the referent, and consequently of colouring the meaning of a word. A lover's interest in anything connected with his beloved, even mischievous small brothers, is a well-worn theme of comic papers.

Incidental emotional meaning may further be due to an attitude caused by outside factors. A temporary excitement of the speaker may lead to the use of words implying an intensity of feeling that is very far from being objectively justified, only because the excitement permeates the total mental content. Cf. 14.53 below on adequation of hyperbolic statements.

An important instance of incidental emotional meaning is constantly met with in literature. The general topic of a poem or prose composition will often be of a nature to excite the emotions of the reader — and may be conceived by the writer in a similar state of emotion. This "Stimmung" permeates the whole text, and imparts an emotional colouring to words and phrases that are otherwise totally indifferent from an emotional point of view, because the referent is presented in such an aspect that it is apprehended emotionally. Almost any poem will illustrate the point. The attitude evoked by a text (book) as a whole impregnates every part of it. (Cf. Britan's insistence on language as an instrument for the excitation of emotions, Britan 49).

Another instance is the well-known fact that a furious or suspicious man will read into the words addressed to him meanings that are far from being the speaker's intention, and perhaps logically preposterous and unreasonable.

Incidental emotional elements may be expressed either through verbal or through non-verbal means, just like the permanent elements.

4.156. *Volitional Attitudes.* Volition is a specific kind of emotional attitude. Müller-Freienfels states that the essential element of volition is a selective activity, adjusted to a purpose approved and fixed by the subject. (Müller-Freienfels, Einfluss 384. Cf. Fröschels (63): Willenshandlungen sind solche die immer einer bestimmten spezifischen seelischen Einstellung bedürfen, und mit einer solchen ablaufen).

Volition, like other emotional attitudes, may be expressed by symbols (*I want you to come*), or by signals (a commanding tone of voice, a gesture, etc.). The attitude may be directed towards the referent or towards an interlocutor.

The purpose of volitional expression is not merely to influence the state of mind of an interlocutor, but to make him perform definite actions — with or against his own will. What was stated above on the communicative aspect of emotions is applicable also to volition (cf. Maier 19).

For the rest, the volitional elements of meaning are as little investigated as other emotional elements, and there is an almost complete lack of material for a review of the subject. I must therefore leave it with this brief note. (Cf. Paulhan, Rev. Phil. 104, 29.).

4.16. *Central and Peripheral Elements of Meaning.* The meaning of a word is often complex, and certain of its constituent elements may on any given occasion receive a greater share of attention, while other elements form a "fringe" (cf. Burkamp 248, with ref. to Westphal, Arch. 21), that is to say, they are less specifically attended to. I shall call the former central, the latter peripheral elements.

It is first necessary to note, that what is central and peripheral in a meaning is not at the same time always central and peripheral in mental content as a whole. A word may occupy a peripheral position in the speaker's or hearer's total mental content, and still have central elements of meaning. And, conversely, a word that stands in the focus of attention in the mind as a whole, may have peripheral elements of meaning.

If a builder is speaking of *bricks* as a possible material for facing a building, he is probably thinking mostly of their colour and external aspect; if he is speaking of bricks as an alternative material for foundations, he is thinking of their durability and resistance to high pressure; if he is discussing the number of bricks likely to be required for a certain construction, he is turning his attention mostly to their size; and if he is asking about the number of bricks delivered last week, he will be thinking of them as entities, without paying any attention, for the moment, to their characteristics (cf. Gompery II. 1. 172)

In this way different elements within the range of a word will on different occasions occupy a central position because the characteristics of the referent which are apprehended through them are relevant to the momentary context. On other occasions, the same elements will be clearly peripheral, because the corresponding characteristics are of no further interest in the actual context. Cf. 4.24 on specialization of meaning.

As already stated (4.12, quotation from Ogden-Richards) emotive elements may function as central or as peripheral. It is very common for a word to have an emotional tone which makes it suitable for use in contexts characterized by a similar tone. For instances, see 4.152. In discussing hyperboles and adequation we shall come across many instances of emotive elements functioning as central, while the cognitive elements of meaning have altogether sunk into the background.

In 4.152 were given instances of words expressing different subjective apprehensions of their referents, and therefore applicable only in connections where such apprehensions are proper and relevant (as *wretched wight*, compared with *poor young man*. German instances in K. O. Erdmann 103 sqq.). We may say that such pairs of expressions have the same, or at least approximately the same referential range, but different semantic ranges (cf. 3.25). According to my definition, the emotive elements connected with, for instance, *wretched wight*, belong to the meaning of the expression. I am doubtful whether the characteristics that make some words suitable in certain styles only, religious, poetical, journalistic, vulgar, and so on, are anything but one peculiar variety of what I have just been describing. Possibly we ought to reckon with special stylistic associations; if so, they would appear to fall outside the scope of this work (cf. Ahlmann 83).

I have stated above (3.16) that the meaning of words comprises only a portion of the total mental content present in the mind of a person when they are pronounced or comprehended; and I have used the term context to denote such elements as are not expressed by the words (cf. especially 6.32). The distinction between peripheral elements of meaning and context has not always been clearly realized, and requires some comments.

One item in context is one's awareness of surrounding circumstances, not connected with the topic of speech (cf. 3.22). The awareness of an interlocutor is sometimes of great importance for the selection of words (5.52). From the hearer's point of view, it makes a great difference if a statement is made by a person in whom he has confidence, or by one whom he considers as unreliable. Such factors are effective through the medium of the subjective apprehension, and they should be considered as elements of context, not belonging to meaning although exercising an influence upon it.

We have further the awareness of sphere or direction (Sphärenbewusstsein, cf. 6.22). *Harmodios* may evoke the thought of his country and period, and more specifically may make us think of Aristogeiton, perhaps also of Hipparchos, of ancient Athens, of the well-known group representing the tyrannicide, and so on (cf. 3.16). All this certainly contributes to making the referent of *Harmodios* stand out more clearly in all its implications, by providing it with a fuller background (cf. 6.22 and 6.36 on mediating items in comprehension). In metaphors, for instance, such an associative background is clearly of the greatest importance. But it cannot belong to meaning, since it does not fall within the range of the word. It should be described as mental context, which, through the medium of the subjective apprehension, may exercise a certain influence on the meaning of the word.

One point may be noted. It is doubtful whether such elements of context are, normally, connected with single words in speech; it seems more probable that they rest upon entire utterances, or perhaps sentences. The experiments with isolated words cannot always show what actually happens in connected speech. (Further details on context are given in 6.32).[1])

4.17. *The Vagueness of Meanings.* Jaberg (Herrig's Archiv 136, 96 sqq.) describes two different reasons for uncertainty concerning the meaning of a word. One of them is illustrated by the case of a girl from Berne, who was asked, "What is *Wimpere* (eye-lashes) in the Berne dialect?" She replied, "Well, do you mean this (eye-brows) or this (eye-lashes)?" She had a clear knowledge of the distinction between the two referents, but her knowledge of language was insufficient. Jaberg calls this linguistic uncertainty. The other case is illustrated by the impossibility of saying exactly where the line is to be drawn between *cheek* and *chin*, or between *hip* and *thigh.* Jaberg calls this objective uncertainty. (Cf. also Tappolet, Meringer, v. Wartburg and others, quoted by Jaberg; and Sandfeld, Sprogvid. 81 sqq.).

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[1]) K. O. Erdmann, in a well-known and often quoted passage, makes the following distinctions with regard to the meaning of a word: "(1) Der begriffliche Inhalt von grösserer oder geringerer Bestimmtheit; (2) der Nebensinn; (3) der Gefühlswert. Und ich verstehe unter dem Nebensinn alle Begleit- und Nebenvorstellungen, die ein Wort gewohnheitsmässig und unwillkürlich in uns auslöst; unter Gefühlswert oder Stimmungsgehalt alle reaktiven Gefühle und Stimmungen, die es erzeugt" (K. O. Erdmann 107).

If we study Erdmann's preceding analysis, especially p.105, we shall find that *der begriffliche Inhalt* is an attempt to define the constant element in the meaning of any word — an attempt that cannot succeed on these lines, as I have shown in 3.23. Erdmann instances the two words *Leu* and *Löwe,* which, he says, have identical *begrifflicher Inhalt,* but different *Nebensinn* and *Gefühlswert.* The case is evidently parallel to that of *poor young man* and *wretched wight,* described above; that is to say, the two words have approximately identical referential range, but different semantic ranges. They refer to identical referents through different subjective apprehensions.

Erdmann ascribes to the word the power of evoking *Nebensinn* and *Gefühlswert.* This cannot be true of the word as a mere sound-group, but only of the comprehended word, and it seems reasonable to assume that the associations are connected on the one hand with the referent (which, as shown in 4.154 sq. is an important source of emotive colouring), on the other hand with the subjective apprehension expressed by the word, *i.e.,* with the meaning. I do not know if it is really possible to make any tenable distinctions on this point. It may be added that Erdmann does not reckon with the speaker, for whom the emotive colour

It is evident, as Jaberg points out, that such uncertainty may lead to sense-changes. Thus, the descendants of Lat. *coxa* 'hip', in the Romanic languages often mean 'thigh' (for instance Fr. *cuisse*. Meringer, Wörter u. S. III 49 sqq.). Wartburg has shown that the notions connected with the word *borgne* vary in different localities. Jaberg concludes, on the basis of his own researches, that the abundance of synonyms in lexicological border-districts leads to linguistic uncertainty, the referents themselves still being clearly distinguished.

In my terminology, the former type of uncertainty is a lack of knowledge of the range of the words, the latter is lack of knowledge concerning the referent.

Marty (Unt. 527 sqq.), in discussing what he calls *die Verschwommenheit der Namen*, makes a similar distinction between names that are intentionally given a certain vagueness, and others which in themselves are what he calls "unscharf". To the former group, which is equi-

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due to his adjustment to the referent is prior to the words, the selection of which it determines.

The definition of *Nebensinn*, although limited by the terms *gewohnheitsmässig* and *unwillkürlich*, does not provide an adequate delimitation against mental context. The instance of *Harmodios* is a case in point. Some of the notions mentioned above as elements of context might fall within the meaning of the word according to Erdmann's definition, a consequence which I do not think he would accept. Erdmann has failed to see the difference between elements that are peripheral in the *meaning* of a word, and those that are peripheral in a person's *total mental content*. The two may perhaps coincide, but are probably more often distinct. He has also failed to see that emotive elements may be central in meaning, and thus to keep apart the two distinctions central/peripheral, and cognitive/emotive.

Wellander (Studien I 41) rejects Erdmann's distinction between *Nebensinn* and *Gefühlswert*, which, in his opinion, are so closely connected that it is often "unmöglich, und, ich möchte sagen, unrichtig, jedenfalls unpraktisch" to distinguish them. Wellander prefers to take them together as "Assoziationsgehalt", which would then be "jene spezifische Zugehörigkeit des Wortes zu einem bestimmten Vorstellungskreis, welche gerade diese assoziativ verbundenen Vorstellungen dem Bewusstsein nahe bringt". This sphere may be emotive or non-emotive.

It would, I think, be more correct to say that the *Assoziationsgehalt* is "die verbundenen Vorstellungen" themselves, since we are dealing with psychic elements, not with abstractions, as *Zugehörigkeit*. But, as I have shown, to extend the limits of meaning in this way leads to preposterous results. Like Erdmann, Wellander fails to see that emotive elements may predominate in meaning, and he is, as far as I know, the only writer who denies the essential importance of the distinction between cognitive and emotive elements.

valent to Jaberg's linguistic uncertainty, belong expressions prefaced by *about: about a hundred;* forms like *greenish, longish,* or with the qualifications *resembling, not unlike, related to, comparatively,* and so on. The other type is equivalent to Jaberg's objective uncertainty, and comprises adjectives like *great, small, young, old, swift, white, black, grey,* etc., as well as many words denoting ethical notions. We find this characteristic everywhere in names of referents permitting a greater or smaller quantity, or degrees of a quality, in a literal or a metaphorical sense.

The two kinds of vagueness correspond to two of the three factors of meaning, the referent and the word. It is only to be expected that a third kind should occur, of subjective origin, connected with the third factor of meaning. It was noted by Paul (Prinz. 25) "dass eine grosse Menge von psychischen Vorgängen sich ohne klares Bewusstsein vollziehen", a circumstance which Paul rightly considers of the greatest importance.

Spearman (155 sqq.) discusses at length the problems connected with degrees of clearness, and comes to the conclusion that the concept of clearness includes two items, *intensity* and *determinateness.* They appear to be disparate. "A startling gulf between the two reveals itself in the fact that degrees of intensity are applicable to realities whereas degrees of determinateness appertain solely to mental objects as such" (l. c. 159). "There appear to be numerous cases where the intensity is great, although the determinateness is small. Such are afforded by the apprehension of new notions; or even of old ones, if sufficiently difficult. Fatigue, also, can reveal striking contrasts in this respect; overnight, certain items may be apprehended with great, even obsessing, intensity, and nevertheless obstinately remain very indeterminate; on the following morning, these same items may arise in consciousness no more intensely than before, but now with the determinateness of a line-engraving. Similarly, when a rather subtle argument is examined over and over again until understood with facility, the later rehearsals of it may quite well fall short of the earlier ones in intensity although surpassing them in determinateness. Or take the case where a man is deliberating; his apprehension of the chief relevant facts is apt to sink to a very low intensity as compared with various mere details, and yet to remain highly determinate" (l. c. 160).

It would appear that linguistic and objective vagueness are both forms of indeterminateness. I am uncertain whether subjective vagueness is always lack of intensity, or whether it is a form of indeterminateness.

Connected with these matters is the problem of conscious and unconscious. "Can an experience actually occur — as held by Plato, Plotinus, Leibniz, and perhaps the larger half of the moderns — without an awareness of it likewise occurring?" In favour of this view Spearman adduces the fact that "to introspect one's experience may under some conditions become exceedingly difficult". Inattention, fatigue, want of practice, inferior native ability, and fugitiveness of the data, may be the causes of such difficulty. But awareness of experience is "not in the least obstructed by indeterminateness; one can be quite sharply aware of thinking unsharply". On the other hand, the eduction of relations and correlates[1]) suffers from indeterminateness: "the less any fundaments are determinate, the worse will their relations be educed, and similarly as regards educing correlates". But if intensity becomes very low, "the power of experiential introspection rapidly declines, but yet *that of eduction seems to remain little affected*. In this way, it comes about that a cognitive item of low intensity can be very "clear" in the sense of intrinsically determinate and eductively effective, and nevertheless at the same time very "unclear" in the sense of unamenable to introspective apprehension" (l. c. 165—166).

These principles seem to me to be directly applicable to the following experiments. During a series of tests, I read to the observers a Swedish sentance: "Med pass menar man en sänka i bergen, i vilken man anlagt en väg" (literally, 'with pass one means a depression in the mountains, in which one has built a road'); I then asked what meaning the testees attached to the word *man* which occurs twice in the passage, with different meanings; the first time 'people in general', the second time 'some people who have built the road'. It was found that the word had not been noticed. Its function, if we explain it according to Spearman's theory, is to be a fundament of certain syntactical relations. Another testee had not consciously noticed the word *menar* 'means'; he had merely apprehended the chief notions of the sentence: pass, depression, etc., but he nevertheless related them to each other quite correctly.

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[1]) On these terms, see note to 4.265.

It seems as if a large portion of what we actually hear or read is not consciously apprehended; it remains at a very low degree of intensity, but nevertheless it is sufficiently determinate to guide our mental process; we interpret the sentence correctly with regard to all its constituent parts. And in spite of the low intensity, we are very sensitive to discrepancies. If I had made the very slight modification of introducing the Swedish pronoun *han* 'he' instead of *man* 'one', the testees would no doubt have noticed that there was something wrong.

I shall have occasion later on to speak of the supplementation of relations on the basis of apprehended fundaments: we do not in listening or reading notice carefully every ending and form-word, but educe the relations which they denote on the basis of the fundamental words of a speech. But if the endings are wrong we quickly notice the fact. In Spearman's terminology, these items are of a very low intensity, and therefore difficult to introspect, but they are sufficiently determinate to make them capable of functioning as members of a relation.

Stout makes similar statements: "It is certainly possible to think of a whole in its unity and distinctness without discerning all or even any of its component details". Further, there are instances "in which only a certain part or certain parts of the whole are distinctly apprehended while the rest appears as a distinctionless unity — as a *somewhat* which may be separated into its component items, but which is not so separated at the moment. It is no exaggeration to say that this mode of thinking pervades our whole mental life" (Stout I 78 sqq., 92. Cf. Burkamp 248, G. E. Müller III 513, Moore, Mono. 255, 276, Ward 307).

A large portion of the psychic content that constitutes the meanings of words thus comes to lie "in the twilight of language" (Wilh. Andersen), where changes may happen without being noticed. If all mental experiences were equally intense and determinate, any modification of meanings would be more likely to be noticed and corrected. As it is, discrepancies with regard to some elements may pass unnoticed if only they are able to fulfil the functions that devolve on them a fundaments for relations; that is to say, they may have a very low intensity, if they are only sufficiently determinate.

The correlation between the distinctions here made, and those spoken of in the preceding paragraph, are obscure. It would seem, however, that peripheral elements are weak both in intensity and determinateness. Whether these two qualities fail simultaneously, or if sinking intensity is the first step from central to peripheral, is a problem that would require further investigation.

It seems probable that it is especially the lack of determinateness that paves the way for sense-changes "in the twilight of language". Linguistic and objective vagueness involve a certain elasticity of the objective and semantic range, owing to lack of definite limits. If a border is vague, it may easily be over-stepped.

4.2. Logical Elements and Categories of Meaning.

4.21. *Introductory.* The problems to be dealt with in the present section have attracted much more attention and been much more discussed among philologists than those pertaining to the psychic constituents of meaning. Nevertheless, many aspects of the matter are still very inadequately known, and require much additional work before we can say that the problems are stated with precision. Every one of the distinctions described below is in need of further elucidation, and my exposition is only a preliminary survey of the field. Much confusion has been caused by Paul's unfortunate definitions of usual and occasional meaning, which have been repeated in later handbooks in spite of the criticism long ago directed at them by competent scholars. It will be apparent in the following chapters that many sense-changes cannot be satisfactorily explained if we do not make use of the fundamental distinctions established by Husserl and other writers.

4.22. *Actual and Lexical Meaning. Isolated Words.* Actual meaning is the meaning of a word in actual speech. Lexical meaning is the mental content attaching to an isolated word (or phrase). When I say "isolated", I do not mean merely syntactically isolated, as a word functioning as a sentence (*Fire!*), but a word that has really no context, external or psychic; for instance the words in a dictionary. A sentence used in a grammar to illustrate a rule (*e. g., the candle was burning brightly*) is also isolated in this sense (Cf. Pos 59, 61).

In ordinary speech isolated words and sentences do not occur. They are a peculiarity of the study of language. "We never — except for the sake of this very inquiry — attempt to fix our minds . . . upon some isolated concept; in actual thinking ideas are not in consciousness alone and disjointedly, but as part of a context. When the idea 'man' is present, it is present in some proposition or question, for example, Man is the paragon of animals, In man there is nothing great but mind, Is man immortal? and so on" (Ward 299).[1])

The present study is concerned only with actual meanings. The meanings of isolated words are discussed here in order to demonstrate the distinction between them and actual meanings, a distinction that has not always been sufficiently recognized, nor correctly analysed.

The first essential difference between actual and lexical meaning is that the latter lacks a *definite* objective reference, which, as shown in the preceding chapter, is a constitutive characteristic of actual meaning. This comes out clearly if we compare the sentence quoted, *the candle was burning brightly*, as used in a definite context, in actual speech, with the same sentence occurring in isolation. In the former case, we know more or less about the context, the situation, and we are able to put the import of the sentence into relation with our previous knowledge, and to apprehend the actual referent which it denotes. If the sentence is isolated, such a mental operation is impossible. We know of course what a candle is, and we know what it is to be burning brightly, but we do not know *what* candle it is that is burning brightly, or *where*, or *when*, or *why:* we are not able to assign to the candle and its burning a *definite* "place" in any perceived or imagined universe. We are able to imagine *possible* referents for the phrase, but we cannot fix upon any one of them as being that intended by the speaker — because there is no speaker, in the sense in which I have taken that word. This is the second essential difference between lexical and actual meaning. The former is not an expression of a language-user's subjective apprehension of a referent, because an isolated word is not used in actual speech and has no definite referent. An isolated sentence is a proposition, but not a judgement. It lacks the purposive function characteristic of speech, because there is no speaker whose purpose it could express.

This applies even to so-called unica. *The moon!* spoken without any context, external or mental, to indicate its setting, will make the hearer ask: *"The moon? Well, what about it?"* A word has actual meaning only in a sentence or by suggesting a sentence (Bosanquet I 37—38, Pos 61, 67—68, Gardiner, passim; and 6.31 below).

Paul and other writers have confused the distinction between lexical and actual meaning with the distinction between general and particular meaning, which is discussed in the next paragraph, and especially have they confused the two notions lexical and general meaning. They assume that the lexical meaning of a word is equivalent to its most general actual meaning; that, for instance, an isolated *animals* would have the same meaning as the word *animals* in the sentence *all animals were created by God*. This is a mistake. In the latter case the word has a definitely "placed" referent; in the former a reader or listener knows of no such definite reference: "we are set making propositions at randon" (Bosanquet). Lexical meaning has also been confused with the range of the word (cf. 4.3).

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[1]) Humboldt § 32: Die Sprache liegt nur in der verbundenen Rede. Grammatik und Wörterbuch sind kaum ihrem todten Gerippe vergleichbar.

As will be shown in 6.22, the mental content associated with an isolated word, leaving aside the feeling of familiarity or strangeness, is composed mainly of the following items: (1) an awareness of the sphere or direction in which the referent is to be sought, or, if the word has many dissimilar meanings, possibly of more than one sphere; (2) an awareness of one or more of the applications of the word; (3) images representing one or more of the possible referents of the word. More briefly, we might express this in the following way: an awareness, more or less clear, of the range of the word, and of a smaller or greater number of items falling withing the range; images may also occur.

On the whole, if we define meaning as I have done, it is not correct to speak of the meaning of an isolated word. Two of the three determining factors of meaning are left vague: we do not apprehend definitely the objective reference, and we do not know under what aspect the referent is to be apprehended — the subjective apprehension is vague. It is only the third determining factor, the traditional range, that is, or at least may be, definitely known.

Lexical "meaning" should thus be defined more precisely as an awareness of the range of a word. Such an awareness is probably in most cases not much more than a rather vague awareness of direction, in which one item or another, arising at random, may stand out in greater clearness, either in the form of thoughts or of imagery.

4.23. *General and Particular Meaning.* Compare the following phrases, (1) *the dog is a domestic animal,* and (2) *that dog is mad.* In the first instance *dog* has a collective, general import, equivalent to 'all dogs'. In the second instance, *dog* refers to one particular animal.[1]) In this way all appellative nouns can be used either to represent the species or to denote an individual (in the plural a number of individuals) belonging to the species; in other words, it can be used in a *general* or in a *particular* sense.

The same is true, with slightly varying characteristics, of other nouns, of adjectives and of verbs. We may speak of *running* as a useful exercise, in the general sense of the verb, or we may speak of *my dog that ran away,* in a particular sense. Husserl (II. 1.87) gives another instance: *es gibt Kuchen* (hic et nunc), and *es gibt regelmässige Körper.*

When a word is used in its particular sense, the referent is one or more items within the referential range. The referent of the word used in its general sense is not easy to define. *The dog* cannot denote the general concept or category of dogs, for it is not the concept or the category that is a domestic animal. To interpret the sentence, 'the category of dogs belongs to the category of domestic animals' seems to miss the point of the statement, which is to ascribe to real dogs a certain characteristic. The word in the singular appears to represent in a peculiar manner all and any dogs; or is it the one dog denoted that represents all his fellows? If we turn to abstract nouns, as *liberty involves responsibility,* the problem has yet another aspect. I have to leave this very knotty point to the logicians. — At any rate, the general concept cannot be the *meaning* of the word (cf. 3.15).[2])

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[1]) A generalizing or a particularizing function is sometimes ascribed to the definite article in English. It is of course the noun, not the article, that thus varies in meaning.

[2]) Writers who regard the general concept as the meaning of the word in its general sense have to discuss its formation and characteristics. I take the existence of general concepts for granted; to analyse their nature and origin is a problem for epistemology. Some philologists at least appear to explain general concepts only through abstraction, a view for which I find no support among logicians and psychologists. "Il est impossible de réduire la généralisation à l'abstraction, qui ne saurait conférer la généralité au caractère qu'elle isole, ou à la substitution qui, loin de fonder la généralité, la présuppose" (Delacroix 90). "To describe the process by which "insight" is obtained as a mere matter of abstraction, the result of association . . . deserves the stigma of 'soulless blunder' which Hegel applied to it" (Ward 304). Spearman 266 sqq. gives a review of some experiments on the problem. See also Gomperz II.1.169 sqq., 228 sqq.; Cassirer. Spr.u.M. 20 sqq., Phil. I 244 sqq., III 134 sqq., 335 sqq., 365 sqq.; Moore, Mono, 238, 242, 262 sqq.; Ogden-Richards 154 sqq., and especially Willwoll 4 sqq.

4.24. *Specialized and Referential Meaning.* In the sentence, *I can just make out that one of the two is a man, and the other a woman,* the speaker is thinking, in connection with the word *man*, almost exclusively of exterior characteristics, dress, etc., that show a human being to be a man (*vir*); in *He was a man, take him for all in all, man* refers primarily to certain moral and mental qualities that are considered as typical of a man of honour; in *Man is immortal*, the word refers to 'human being' in general (*homo*); and in *He had an army of ten thousand men, men* refers to the soldiers as entities, without signifying any specific characteristics (Cf. the instance of the *brick* adduced in 4.16 above; Lipps, Wortbedeutung 61, Bain I 203 sqq., Greenough & K. 248 sqq.).

Another instance is *What a child you are!* where *child* means 'childish'; that is to say, the meaning of the noun is specialized to denote certain characteristic qualities of the referent. In this way a noun may receive adjectival function. (Cf. Sweet, Grammar § 173; Jespersen, Gr. a. Str. 134; Efvergren 47).

In general terms, if a referent has the characteristics *a b c d*, a speaker's attention may be directed to one of them, or to a combination of them, and need not embrace the whole complex (cf. Scripture 63—64). I call this peculiarity the *specialization* of meaning. For one type, the last of the four mentioned with regard to *man*, in which the speaker refers to the referents as entities without attending to their characteristics, I use the term *referential* meaning. Referential meaning is thus one kind of specialized meaning (cf. Conrad, Arch. 19, 453 sqq.)

From the psychological point of view we have to notice that when complex psychic structures are associated, bonds are formed also between elements, not only between the totals. It is thus in accordance with known facts if we assume — in explanation of the phenomenon of specialization — that the word is associated with the apprehension of each characteristic of the referent, not only with the apprehension of the referent as a whole. Note that each characteristic is of course appre-

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It is evident that the word plays a very important part in the formation of general concepts (Cassirer, Phil. III 135). It is the most substantial item of the complex, round which the other elements group themselves. Jacobsson (Begreppet 205) defines *Begriff* 'notion' as a precisely determined unit of meaning. — I have already spoken in the preceding paragraph of the frequent confusion of lexical and general meaning.

hended as inherent in the referent in question, not as an isolated item. The reference to the whole entity should be assumed to be always present.

There is thus no difficulty in explaining how the apprehension of, for instance, any one characteristic of a man can always evoke the word *man*. Conversely, in the hearer, the word is able to evoke that aspect of the referent which is relevant to the context, leaving the other aspects outside the consciousness.¹)

In a word like *brick* we do not speak of different senses or shades of meaning. In other cases, one or more aspects of the referent gain in importance and independence, and new senses of the word arise (*man* = 'vir' or 'homo'). Sometimes one language will, as in the instance given, retain the same word for different aspects of the referent, while another language marks the distinction by the use of different words. The importance of specialization as a starting-point for sense-changes is obvious and will be constantly mentioned in the second part of this book. Cf. Stöcklein 9.

Specialization is not confined to cognitive elements. In *I have oceans of time*, the cognitive import of *oceans* is altogether lost, and there remains only the feeling of something very big (cf. 14.531).

The number of definitions of specialized meanings in a dictionary are an indication of the varying aspects of the referent denoted by the word in question. The referent, for instance, of an adjective denoting a simple quality, is almost homogeneous, and there will be very few shades of meaning to define.

If we compare specialized meaning and particular meaning, we find that primarily the former involves a restriction to a part of the semantic range of the word, the latter a restriction to a part of the referential range (3.25). Cf. the instances given above. We find, further, that a general meaning is also specialized, as in *Man is immortal.* On the whole, it is the normal thing for a meaning to be specialized, whether

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¹) Cf. Thorndike, Psych. II 34: "When such a part (*i.e.*, part of a total situation) happens alone (It really never happens alone, being always a part of some total state of affairs. The *alone* means simply that it is a very distinct and predominant element of the total situation) or in a new context, it does, as was stated under the laws of partial activity and response by analogy, what it can. It tends to provoke the total response that was bound to it; it tends especially to provoke the minor features of that total response which was especially bound to it". Cf. below 11.51.

it is general or particular. It must be very rare for the total semantic range of a word to be simultaneously present in mind.

We may, further, compare specialization with the distinction between central and peripheral elements of meaning (4.16). If we specialize on any one characteristic of the referent, that characteristic is central in meaning, and the two notions specialized and central are thus correlative, the former pertaining to the logical, the latter to the psychological point of view.

4.25. *Tied and Contingent Meaning.* Husserl (II. 1. 79 sqq.) discusses what he calls, on the one hand, *wesentlich objektive Ausdrücke,* and on the other hand, *wesentlich subjektive und okkasionelle Ausdrücke.* The latter show a peculiar shifting of the actual meaning, which Husserl illustrates by the phrase *I wish you luck.* It is evident that the referent of this phrase changes from case to case; innumerable different persons and different kinds of success may be denoted. But this polysemy is quite different from the polysemy, for instance, of the German word *Hund,* signifying either 'dog', or 'kind of cart used in mines'. It is especially the latter type that is meant when writers speak of equivocation; but it would be possible to avoid the equivocation, while in the case of *I wish you luck* it is unavoidable. I shall use the terms *tied* and *contingent* meaning.

A meaning is a tied meaning, according to Husserl, when its reference is determined by word and verbal context, without regard to the person speaking or to other circumstances. A tied meaning may also vary: there is then more than one possibility, each determined in the manner stated.

A contingent meaning is not absolutely determined by word and verbal context; it shifts with the momentary external context, including the speaker. The hearer must take these into consideration in order to interpret the words correctly.

It seems to me that the distinction lies essentially in the circumstance that a tied meaning refers to a category of objects, or to one or more of the individual objects belonging to such a category. The word may be able to refer to more than one category, as in the case of *Hund.* A contingent meaning, on the other hand, is able to refer to a variety of referents that do not together form empirical categories.

The meaning of all theoretical statements, statements concerning principles and doctrines, demonstrations and theories of "abstract" science, are tied. The actual circumstances have not the slightest influence on the meaning of, for instance, a mathematical thesis. We read and understand it without thinking of the speaker or writer. Expressions in daily life, on the other hand, constantly show contingent meanings. This is the case with any sentence containing a personal pronoun. The word *I* denotes different persons on different occasions, and the correct reference is to be gathered only from the external context, the circumstances of the utterance.

What applies to personal pronouns, applies also, with modifications, to other pronouns, and to words like *here*, *there*, *above*, *below*, *now*, *yesterday*, *to-morrow*, *afterwards*, and so on. The contingent character of such meanings is transferred to all sentences in which the words are used, and these include all utterances in which the speaker expresses anything concerning himself or concerning things thought in relation to himself; that is to say, all expressions for perceptions, beliefs, doubts, wishes, hopes, fears, commands, and so on. Here belong also all nouns with the definite article, referring to individuals that are denoted only by the name of the genus or class. When we speak of *the king*, we mean our own king, when we ask for *the lamp*, we mean our own lamp (Husserl l. c.). Jespersen (Language 123) employs the term *shifters* for words with contingent meaning. We shall have occasion to recur to this matter in discussing the unique use (14.85).

4.26. *Basic and Relational Meaning.*

4.261. *Introductory Remarks.* Meillet has called attention to the fact that in the earlier Indo-European languages there is no form that represents the noun as such without regard to the relations into which it necessarily enters when used in speech. In Latin, for instance, it was necessary to say *lupus*, or *lupi*, or *lupos*, and so forth, and there is no form without the endings which always assign to the word a definite syntactical function (Meillet, J. de. Ps. 20, 246, also quoted Delacroix 8 note; Amman, Rede I 34). Wundt had previously (Die Sprache I 594) made a distinction between *Grundelemente und Beziehungselemente des Wortes*. "Grundelemente nennen wir hier wieder diejenigen Lautbestandteile, die für den innerhalb einer bestimmten Wortgruppe konstant bleibenden Begriff characteristisch sind, während die Beziehungselemente solche Bestandteile umfassen, durch die jener Begriff

irgendwie modifiziert und dadurch zugleich zu andern in die Rede eingehenden Worten in Beziehung gebracht wird". However, Wundt did not apply the distinction to meanings, but only to the form of words, and he has not worked it out in detail.[1])

In many languages syntactical relations, for instance the genitive relation denoted by the *-i* of *lupi*, are denoted by particular words; in other cases they are left undenoted or are indicated by word-order. Thus there is nothing in the form of the two proper names in *Jack beats Jill*, and *Jill beats Jack*, to show the different syntactical functions (cf. Wundt II. 1 sqq.).

I shall make use of the terms *basic* and *relational* meaning to distinguish the elements of meaning corresponding to the stem of a word from those corresponding to certain (not all!) endings. The relational meanings are relations in speech, and their fundaments are the basic meanings. The referents of these two kinds of meanings are, respectively, relations holding between referents, and the fundaments of these relations, *i. e.*, the basic referents.

As stated in ch. 1, the relational meanings are not exhaustively treated in this investigation, but it is necessary nevertheless to define the boundary between basic and relational meanings, and especially to discuss the combination of basic and relational meanings, as well as some peculiarities of the latter.[2])

4.262. *The Psychic Reality of Relations. Relations as Referents.* A few words should perhaps be said on the importance of relations in speech, and on their psychic nature. For the first point I refer to the following chapter, where abundant evidence will be given regarding the importance of relations in the production and comprehension of speech, as shown by Head and other writers.

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[1]) The words carrying an independent meaning "sind . . . jene, die Aristoteles die *kategorematischen* Redeteile nannte: Haupt-, Für-, Eigenschafts-, Zeit-, Umstandswörter u. dgl. Die Verbindungswörter dagegen — und ihnen treten gleichberechtigt die grammatischen Formen sowie die Wortstellung und die Unterscheidungszeichen zur Seite — bezeichnen, da sie eine selbständige Bedeutung *nicht* haben (und darum nennt sie ja Aristoteles *synkategorematische* Redeteile), nicht "Teile" des durch Zusammenfassung zu gewinnenden Bedeutungsganzen, vielmehr schon die zu wählende *Art* dieser Zusammenfassung selbst." (Gomperz, Sinn 45).

[2]) Cf. on this subject also Otto 60, B. Erdmann II 371, Bosanquet I 19, Delacroix 200, Lindroth 133, Svanberg 81 sqq., and especially Salomaa.

With regard to the second question, opinions among psychologists seem to differ. The meaning of the *Beziehungselemente* of a word, according to Wundt (I 595) "besteht. . . nicht in einem selbständig zu denkenden Begriff, sondern in einer begrifflichen Beziehung, die zu ihrer realen Vergegenwärtigung im Bewusstseim immer der Verbindung mit Grundelementen bedarf". He admits, however, that "da diese Beziehungselemente mit ähnlich sinnmodifizierender Wirkung in den Abwandlungsformen anderer Wörter ebenfalls vorkommen, so besitzen auch sie eine relativ konstante Bedeutung". An extreme case is represented by the abstract particles, which denote a relation and nothing else. They express only "eine unbestimmte Beziehung, die isoliert nicht vorgestellt werden kann. Hier wird das Wort im allgemeinen bloss als Wort vorgestellt, als geläufiger Lautkomplex, der sich aber vermöge der gewohnten begrifflichen Anwendung mit einem Gefühl verbindet, das wahrscheinlich von andern, häufig mit ihm verbundenen Wortvorstellungen ausgeht, die sich assoziativ zum Bewusstsein drängen. . . Das reine Beziehungswort erweckt zunächst nur eine Lautvorstellung, an die irgendein Gefühlseindruck geknüpft ist, der gelegentlich durch wechselnde äussere Wortassoziationen abgelöst werden kann" (l. c. 596).

Bourdon (200) expresses similar opinions. If words like *donc*, *si*, *mais*, have any meaning when taken in isolation, the reason is that they are associated to mental attitudes, and not that they denote relations; *si* is associated to a more or less pronounced attitude of hesitation or doubt, *mais* to an attitude of reservation, and so on. Bourdon quotes experimental results by Michotte and Ransy (Contrib. à l'étude de la mémoire logique 13 and 29) which, however, do not appear quite convincing.

In criticism of these views it should first be pointed out that Wundt and Bourdon do not employ the theory of imageless thought, and therefore scarcely have any other resort than feelings, when they cannot analyse a mental content as constituted by imagery. Secondly, the *isolated* meaning of the particles proves nothing with regard to the actual meanings.

If we turn to actual speech, we shall find that endings and words (as well as word-order), as expressing relations, are used regularly, in an identical manner, in the most varying contexts. In analogical formation of flexional and derivational forms, the relations are handled —

from a very early age — exactly as their fundaments are, and their independence does not seem to be less (9.22). We cannot reasonably explain this in any other way than by attributing to these endings and words a constant meaning, which they express whatever the context. This is an empirical fact, and it agrees with Spearman's statement that "any apprehended relation is in itself an item in the cognitive field over and above its apprehended fundament" (Spearman 158). From this cognitive import of the particle we should distinguish the emotive elements which may go along with it, as for instance in *mais* and *si*, adduced by Bourdon. But I do not see how the meaning of *and* could be explained in this way.

Whether it is possible to conceive a relation in isolation, as Spearman contends, although of course in actual fact no relation (as referent) occurs except as holding between fundaments, — is not relevant for us at present. (See on this point Husserl II. 1. 306 and 313 sqq., apparently concerning isolated words; Bichowsky; Schwarz 160, Bühler Arch. 12, 9 sqq.).

I propose, then, to regard relations as the referents of certain endings and particles, functioning in the same way as other referents with their various names. The apprehension of the relation is the basic meaning of the particle or ending.

Since every word in a sentence stands in a syntactical relation to one or more other words, and these relations constitute the relational meanings of the words, it follows logically that a particle has a relational meaning, which is the actual relation that, in the case of *and*, for instance, holds between the notion of togetherness and the meanings that are together. Spearman calls this the attributive relation: "It includes, for instance, the relation of a character to its fundament, as of redness to the thing that is red. Another instance is the relation borne by any relation itself to either of the things related, as that of fatherhood to father" (Spearman 69. Cf. also Bühler, Arch. 12, 10, quoting Meinong). This relational meaning of a particle is always left unexpressed.¹)

4.263. *Syntactical Relational Meaning.* It will be useful to begin

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¹) The reality and independence of the meaning of a stem, a basic meaning, is of course empirically proved by similar arguments. Cf. Pos 71. See also Willwoll 135 sqq. on the importance of relations in our mental activities, and Salomaa 165 sqq.

the discussion of the various kinds of relational meanings with the simple and obvious case of stem and flexional ending, as for instance the genitive *lupi*. To linguistic instinct, the stem *lup-* represents the notion of the referent as such; the ending *-i* the genitive notion, which corresponds to a relation between the wolf and some other referent. The verbal form *amavi* represents another temporal relation than *amo*, and, in comparison with the passive *amor* and *amatus sum*, other relations with regard to subject and object of the action. The type of relational meaning denoted by these endings may be called *syntactical* relational meaning, since it corresponds, from the semantic point of view, to the syntactical function of the word.

Flexional endings and syntactical relational meanings are by no means always correlative. Many flexional endings denote, not relations, but modifications of the basic referent. This is the case with dual and plural endings, and apparently with the comparative and superlative endings of adjectives and adverbs, although these also have a relational character. Subjunctive endings (or other modifications equivalent to such endings; see below) indicate a subjective attitude of the speaker towards the referent, which I do not include under the heading of relations; similarly the imperative denotes an attitude towards the listener (see 4.15 above). Tense endings denote relations in time, and belong here; similarly passive endings, which denote a re-arrangement of the relations subject-action-object, as compared with the active. (Cf. Pick, Sprachstör. 119, quoting Riess, Was ist Syntax?).

On the other hand, syntactical relations are not always denoted by endings. Sometimes they are denoted by other modifications of form, as for instance in *ring, rang, rung;* sometimes by form-words, and sometimes they are not denoted by any verbal form, but either by word-order or not at all. In this case the speaker leaves it to the listener to educe relations from the given fundaments, *e. g.*, *Jack beats Jill*, as compared with *Jill beats Jack*. *A leather shoe* is a shoe made of leather, but *a leather varnish* is a varnish intended for use on leather.

Oertel points out that endings often have many meanings. The ending of *amarem* expresses (1) the attitude of the speaker, (2) the person of the speaker, (3) the time relation; the *-i* in *domini* combines (1) gender, (2) number, (3) the "case" relation, (4) an implication of the nominal character of the word. This is perhaps not quite correct. It seems to me that the meaning of *-i* should be regarded as a contingent meaning, and that the relational meanings attributed to the word are partly educed from awareness of the fundaments and their connections, so that the comprehension is not founded only on interpretation of the *-i*. The nominal character of the word is of course linked up with the word as a whole, not with the ending, since *-i* may also be a verbal ending.

It is very common for syntactical relational meanings not to be denoted by any word or part of a word. Language apparently cares little for relations and often employs expressions that may be logically inexact but are more effective, brief and to the point: *how charming she is with her dark curls*; a logically complete expression would spoil the effect. (Further instances see Lerch, GRM 1913, Bühler, Ber. 120 sqq.)

4.264. *Derivational (Relational) Meaning.* Another type is represented by the meanings of prefixes and suffixes as modifying the meaning of a stem, the basic meaning. In the group *like — liken — likeness*, there is a basic similarity of meaning which is modified in various ways in the derivations (Cf. on derivational groups, 9.25). The suffixes *-en* and *-ness* are clearly apprehended as having a definite meaning of their own, since they are freely used to form new combinations with new stems, and always modify the meaning of these stems in the same way. Sometimes the variation of function finds no expression in the form of the word, as in *round*, which may be a noun, an adjective, a verb, an adverb, or a particle; a multiplicity that has a uniting link in the cognate basic meanings.

A typical difference between derivational meanings and the syntactical relational meanings discussed in the previous paragraph, is the circumstance that the latter correspond to the syntactical functions of the word in the sentence. That is not the case with derivational meanings. A "passive" noun, as *examinee*, may very well function as subject (agent) in a sentence, without losing its passive character. The relations denoted by the endings are relations to some item denoted by the stem. (Cf. Stern, Studia Neo-phil. II 102—103). The feeling for this relation must be alive to the speaker at the moment of coining a word, for instance *trustee*. But if the word comes into current use, adequation (see ch. 14) soon sets in. The referent will always have other characteristics than that of being trusted: a trustee has positive functions, as manager of an estate, etc., and the meaning of the word may be variously specialized, so that the relational aspect in certain contexts falls into the background, among the peripheral elements, or is even altogether lost. That is the case in *committee*, as shown by the shift of stress. The adequation is then complete.

After adequation, the relation between the meaning of the derived word and the meaning of its stem is felt only in the case of specialization in this direction. With that exception, the meaning of the word then belongs to a group discussed by Moore (Mono. 191); he reckons among the characteristics which some meanings have, though all do not have them, "a consciousness of relation as an integral part of itself. Thus, I cannot think of creature, cause, father, etc., without reference to something else beside the creature, the cause, the father, etc. Any analysis of these concepts leads to their correlatives, creator, effect, son, etc., though I can, for instance, confine my attention to the concept of 'being' without, in the same sense, being obliged to refer to something to which 'being' is related".

Moore is no doubt right in saying that "any *analysis* of these *concepts* leads to their correlatives", but this does not imply that we cannot "think of father, etc., without reference to something else beside father, etc.". Moore has not taken into consideration the varying specialization in actual speech, when other characteristics of the referent may occupy the focus of attention, and the relations mentioned be lost sight of.

It seems to me that words like those quoted by Moore, as well as others (*point, head, foot, big, new,* etc.) in so far as the relation involved in their meanings is attended to, are not dissimilar to the words with contingent meanings (4.25). We do not know precisely the meaning of *head* or *cause* if we do not know of what it is the head or the cause. I suggest that these meanings are determined by relations to other referents, while in the case of contingent meanings the determination rests on the relation to speaker and hearer, their placing in time and space, and so forth. Whether the distinction is essential, or if the two classes can be merged, is a point that requires further investigation.

When we have a genitive like *trustee's*, the meaning of which, theoretically, is composed of stem meaning plus derivational meaning plus syntactical relational meaning, it will generally be the distinction between the first two, taken together as basic meaning, and the third, as relational, that is sensible to linguistic feeling and important for comprehension.

4.265. *"Indicated Purport"*. The meaning of words like *trustee*, or, in general, of derivations in which the derivational suffix may still be felt as a distinct item, are instances of what Spearman terms indicated purport. Purport is Spearman's term for the meaning of any combination of words, whether compound, phrase or sentence. "In this kind (sc. of contribution to the purport of a passage; Spearman has not applied the principle to derivations), the individual meanings are made to serve, not on their own account at all, but only by way of *indicating* further cognitive items. For an example, we may take the historically interesting case of "the-root-of-two". Here, the purport itself, as was rightly noticed by Bolzano, is far from being exhaustively constituted by the meaning of the four given words. Indeed, these may not enter into the purport at all. To arrive at this latter is an achievement that requires our third principle.[1]) *Two* supplies the initial fundament; *the-root-of* evidently includes a relation of the *two*; and to obtain the character of this root is nothing else than to educe the correlative fundament. "Indication", then, has its basis in correlative eduction . . . These two individual meanings together give birth to their correlate, and in the very act of so doing, they renounce being any portion of the purport themselves" (Spearman 120—121).

This point was noticed by Bühler, who makes a distinction between *direktes und indirektes Meinen* (Arch. 9, 357 sqq.) The former is the awareness that I mean "this: it has such and such characteristics . . .". The latter is the awareness, "what I mean is that which fills such and such conditions". "Wir können auch sagen: Beim indirekten Meinen werde der Gegenstand durch den Akt des Meinens selbst erst gebildet, während er beim direkten Meinen schon fertig sei und das Meinen nur eine Beziehung auf ihn enthalte" (l. c. 359; cf. 6.36, and Fischer, Arch. 43, 44).

Spearman's analysis evidently fits the case of words like *trustee:* the stem denotes the action which serves as the initial fundament; the ending *-ee* is used to denote a relation, that of being the object of action; the second fundament is the referent of the *whole* word, the person who stands in this relation to the action of trusting, and who is thus indirectly indicated. The *-ee*, from the Fr. participial ending *-ée*, Lat. *-ata*, originally a flexional ending, has changed in English into a derivational ending. Compare a word like *pen-hold-er*, in which both fundaments and the relation are expressly denoted; and *leather shoe* and *leather varnish*, where the relation has to be educed (cf. Stern, Studia Neophil. V).

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[1]) Spearman formulates three "noegenetic" principles, each stating one way in which fresh mental content is created on the basis of existing content. The second and third of these are of interest to us. The second principle runs as follows: *the mentally presenting of any two or more characters* (simple or complex) *tends to evoke immediately a knowing of the relation between them.* This is termed eduction of relations (Spearman 62 sqq.). The third principle is the principle of eduction of correlates, and runs: *the presenting of any character together with any relation tends to evoke immediately a knowing of the correlative character* (l. c. 91). I shall have occasion to quote these principles more than once in the sequel.

Whether all derivations are instances of indicated purport is a problem that requires a thorough analysis, like the whole question of relational meanings. It should give interesting results, not least for syntactical studies.

4.27. *Word-meaning and Phrase-meaning.* I make use of the term *phrase-meaning* to denote the total meaning of any combination of words — whether syntactically a sentence or not — as distinguished from the meaning of a single word.

The functions of the phrase as symbol, expression, and communication, sometimes also as purposive speech (cf. 2.13) are not wholly explicable through the functions of the single words: the phrase meaning generally contains supra-summative elements. I refer to 6.38, where the genetic point of view can be applied (see also 5.3, 5.5, and 6.34).

The problem of word and sentence has been the subject of much discussion.

The sentence is perhaps the unit of living speech, but nobody has yet succeeded in formulating an acceptable definition. That problem is outside the scope of my investigation, but something must be said on the interrelations of word-meanings and phrase-meaning, from a descriptive point of view, and in the subsequent chapters from a genetic point of view.[1]

It would be a mistake to suppose that the complexity of an expression and consequently of meaning (except where adequation has intervened) must necessarily imply a corresponding complexity of the referent. As Husserl points out, simple referents can be apprehended through complex meanings. The instance *simple referent* (*einfacher Gegenstand*) is sufficient proof. Conversely, simple meanings may correspond to complex referents; Husserl considers that *something* and *one* (*Etwas* and *Eins*) are conclusive evidence, since these words, of course in the most vague and general manner, may refer to any complex referent. Proper names are also a case in point.

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[1] I refer to the following authors: Brugmann, Satzgestaltung 16, Brugmann-Delbrück, Vgl.Gr.3, 75, Meyer-Lübke, Gr.d.rom.Spr.3, 307, Bühler, Satz, Dittrich, Phil.Stud. 19, 93, Maurenbrecher 239 sqq., Meillet, Remarques 609 sqq., Morgenroth GRM 4, 5 sqq., Pos 60 sqq., Sapir 86 sqq., H. Schmitt 219, Jespersen, Ph. of Gr.305, W. Stern, Kindersprache 170 sqq., Gardiner Br.J. of Ps., Pick, Sprachstör. 130 sqq.; Jahresbericht d. german. Philologie 1916, 3, 42—48; and 5.31 below.

Husserl further states that even if both meaning and referent are complex, it is not necessary for each element of meaning to correspond to an element of the referent, and vice versa. He quotes the instance *a land without mountains* from Bolzano (Husserl II. 1. 296 sqq.). I am not certain that this is correct; negative expressions stand in a class of their own, and require special investigation.

Phrase meaning is, consequently, not to be interpreted as necessarily corresponding to a complex referent; it may owe its complexity to the fact that the subjective apprehension of a simple referent is complex. On the other hand, in a majority of cases the single words in a sentence probably correspond to details and relations within the total referent. At any rate, we have to assume that each word in a sentence carries its own meaning as contribution to the phrase meaning, since the latter is usually ruined if one word is removed. Some of these word-meanings are basic, others relational (cf. 5.51).

In simple cases, we immediately understand the whole phrase by understanding the single words. In other cases, we may be familiar with every word used, and still fail to understand the meaning of the whole (see 6.38). The comprehension of a sentence may involve intellectual operations of considerable difficulty. We do not understand a sentence if we do not understand the single words composing it. If a German is told that *how do you do?* means *Guten Tag*, he still does not really understand the English phrase. He knows its referent, but not the precise meaning (Ammann, Rede I 44—45).

Stählin has attempted to disentangle word-meaning from phrase-meaning in some of his experiments, but with a negative result: he arrives at the conclusion that it is useless to ask for the meaning of the single words in the phrase, because there exists no apprehension of the word-meanings distinguishable from that of the total phrase-meaning. Our apprehension of the whole is disturbed if any single word becomes too obtrusive. The study of single words is artificial (Stählin, Exp. Unt. 155—157).

This statement cannot be accepted. There is no getting away from the fact that single words *have* more or less permanent meanings, that they actually do refer to certain referents, and not to others, and that this characteristic is the indispensable basis of all communication. (Cf. 3.25 on the traditional range). It is on this basis that the speaker selects his words, and the hearer understands them. It is true that in the case of familiar phrases we may treat the whole phrase as a unit of speech and comprehension, referring it to the total referent without further analysis. But the removal of any single word would disturb the correlation. And simple phrases do not constitute the whole of language. That Stählin has not been able to find the word-meanings in the phrase-meaning is no proof that they are not there. His not finding them is easily explicable: the word-meanings are not the final end of speech, but merely a means to that end; they are passed over and disappear as soon as they have done their work. Their intensity may, as Spearman has shown (cf. 4.17) be very low, so that they are difficult to introspect, but their determinateness may still be sufficient for the purpose of building up the phrase-meaning. The highly automatized speech function is capable of going viâ the word-meanings to the phrase-meaning, if no obstacle presents itself, in practically no time. Bühler's experiments show clearly enough that if sufficiently difficult phrases are given to the observers, they have to work on the basis of the word-meanings in order to arrive at a comprehension of the phrase.

The study of single words and their meanings is the indispensable basis of scientific semasiology.1)

4.28. *Autosemantic and Synsemantic Meanings.* Marty, and consequently also Funke, have claimed a fundamental importance for the distinction of autosemantic and synsemantic expressions. (See Funke,

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1) It seems uncertain whether relational meanings belong to word meanings or to phrase-meaning, or if both are possible. In the sentence previously quoted, *Jack beats Jill,* the word-order stamps *Jack* is subject and agent. Are we to say that the relational element thereby connected with the meaning of *Jack* belongs to the meaning of the word, or forms an element of the phrase-meaning? The latter view is perhaps more consistent. But compare a Latin sentence: *Leo cervum interfecit. Leo* is shown by its form to be the subject, and the word-order is of

Innere Sprachform 22 sqq.). There are, he says, in language "Ausdrucksmittel, die schon für sich allein genommen den Ausdruck eines für sich mitteilbaren psychischen Phänomens bilden, während es daneben andere Sprachmittel gibt, von denen dies nicht gilt". In actual speech only so-called sentences are really auto-semantic. "Sie bilden, indem sie im Hörer Urteils- oder Interesse-phänomene zu wecken bestimmt sind, die wichtigsten, für sich verständlichen und abgeschlossenen Gedankenstücke der Rede". Autosemantic are further *Vorstellungssuggestive,* which are intended to evoke *Vorstellungen* (images?) in the hearer's mind. These are divided into *fingierte Reden* and *Namen.* The former are for instance poetical assertions, exclamations, etc. The latter, "bedeuten begriffliche Vorstellungen, wie z. B. Haus, Garten, Ding, Berg, etc." They are not used alone in actual speech, "stellen aber doch hinsichtlich ihrer Bedeutung unter dem Vorrat an Ausdrucksmitteln gewisse relativ selbständige Zentren dar".

The synsemantic words, on the other hand, are "alle die, welche nur mit anderen Redebestandteilen zusammen eine vollständige Bedeutung haben, sei es, dass sie einen Begriff erwecken helfen, also bloss Teile eines Namens sind, oder zum Ausdruck eines Urteils (einer Aussage) oder zur Kundgabe einer Gemütsbewegung oder eines Willens (zu einer Bitt-, Befehls-formel, u. dgl.) beitragen." Such are the prepositions, conjunctions, adjectives, certain verb forms, (as *goes*, *stands*, infinitives and participles), subordinate clauses (as *who has beaten; that he was ill*), casus obliqui of the autosemantic nouns (*the father's*), elements of compounds (*church-tower,* as compared with *church* and *tower,* which are autosemantic).

As Husserl points out (II. 1. 307) we have to distinguish not only between autosemantic and synsemantic expressions, but also between autosemantic and synsemantic meanings. With regard to the synsemantic word, whenever it functions in a normal way, in actual speech, it carries a certain dependent element of meaning and so gives its contribution to the whole (l. c. 306—307). The dependency of the syn-

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no importance in that respect, *cervum leo interfecit* would be equally correct and clear. Are we to assume that in a synthetic language the relational elements entering into the meanings of phrases are apprehended as adhering primarily to the word-meanings? While in an analytic language the sentences are apprehended as complexes into which the relational meanings enter as factors of equal value, not as appendages of the basic meanings?

semantic meanings is not to be explained as due to their being apprehensions of dependent referents. The expression *dependent referent* itself is a sufficient refutation. It is an autosemantic expression, but it denotes something dependent. Any dependent element of a referent may thus be made the referent of an autosemantic expression: *redness, similarity, size, unity, existence;* and this applies both to independent elements of basic referents, and to relations and categories (l. c. 313).

The referents of isolated synsemantic expressions exist only as qualities of other referents, or in relation to other referents, and so on (cf. above 4.262). The meaning of the isolated word *and* is realized by us either through the vague thought that this is a certain well-known particle, or else by the help of vague images or thoughts constituting a combination of the type *A and B* (l. c. 316).

It seems evident that if an expression denotes a referent that is (1) a characteristic of another referent (*green* hat), or (2) a relation between other referents (black *or* white), or (3) placed in a definite relation (*father's*), or (4) an action of another referent (the arrow *flies*), and so forth, then we require some supplementation for complete understanding. This supplementation is not necessarily given in words; it may be given in a perceived or otherwise apprehended context.

In my study of the sense-developments of a group of adjectives and adverbs, I found that some changes of these words were conditioned by the nature of the governing word, or properly speaking, by the nature of the referents denoted by the governing words. Thus the attribution to living beings influenced the meanings of adjectives in a certain way (Stern, Swift 216). Such factors will have to be taken into consideration in analysing sense-changes. At present, for a descriptive analysis, it is not necessary to go into the matter in detail, since it belongs to phrase-meaning rather than to word-meaning.

4.3. *A Note on Other Definitions.* If the argumentation in the preceding chapters is convincing, other theories of meaning will have to be rejected. However, a few words may usefully be added with regard to some of them.

Hermann Paul (Prinz. 75) distinguishes *okkasionelle und usuelle Bedeutung*, giving one definition for each: "Wir verstehen also unter usueller Bedeutung den gesamten Vorstellungsinhalt, der sich für den Angehörigen einer Sprachgenossenschaft mit dem Worte verbindet, unter okkasioneller Bedeutung denjenigen Vorstellungsinhalt, welchen der Redende, indem er das Wort ausspricht, damit verbindet und von dem er erwartet, dass ihn auch der Hörende damit verbinde".

The formulation seems to imply that each word has one usual meaning only, a synthesis of all its occasional meanings (similarly l. c. 82 and 84). But in other places (l. c. 77—78) Paul expressly speaks of a word having more than one usual meaning. Taking the definition as it stands, usual meaning is approximately equivalent to what I have called lexical meaning (4.22), but it is confused with general meaning and with the range of the word. According to Marbe and Marty, Paul also employs the term in the sense of habitual meaning. A term of so many interpretations is clearly useless.

With regard to occasional meaning, Paul provides an ingenious differentia specifica to his genus proximum, *Vorstellungsinhalt*. It is based on the circumstance that out of the many possible particular meanings within the range of a word, the speaker intends only one to be apprehended by the hearer, as for instance in *give me a crown* (= five-shilling piece), where all other alternatives are excluded by the formulation. But, as I have shown in 3.16 above, the formulation is much too wide, because it does not exclude various items of context. When Cæsar reported to the Senate, "*Veni, vidi, vici*", he intended the Senate to understand that the campaign was over and the enemy conquered — but that is an inference, not the *meaning* of the phrase.

Paul's evident belief that a word, in occasional use, had *one* meaning, common to speaker and hearer, is an untenable position (cf. 6.5). Another weak point is his assumption that the connection between a word and its meaning is only an association, a view rejected by Wundt and all later authorities. (Cf. further Stout I 78 sqq., II 216 sqq., Marbe 493 sqq.; Weisgerber, GRM 15, 169; Ahlmann 14 sqq., and 3.21 above).

E. Wellander improves on Paul in one way, by distinguishing the meanings attached to the word by speaker and hearer, and attempts to comprise what he calls *individuelle und lexikalische Bedeutung* in one definition: "Die Bedeutung eines Wortes ist die Vorstellung die ein Individuum mit diesem Worte verbindet" (Studien I 7). We are not told what *Vorstellung* is; if we take it to mean mental content, which seems a likely interpretation, the definition is too wide to be of any use (cf. Stern, Litteris III 50 sqq.). Wellander defines individual meaning as "die Bedeutung die das Wort in dem jeweiligen Zusammenhange hat", and also as "die tatsächliche Bedeutung eines Wortindividuums" (l. c. 12 and 17). *Bedeutung* is here used as genus proximum, and if we insert the definition of that term in the last two formulations — which ought to be possible — they state, one, that individual meaning is the mental content (*Vorstellung*!) which a speaking individual connects with the word in a specific context; the other, that individual meaning is the mental content actually connected with a word in any individual case. It is evident that such vague formulations are of very little use; they are scarcely more than other names for the definiendum. Moreover, they build on the view that "Wortvorstellung" and "Sachvorstellung" are connected merely by an association, and thus, in a psychological and epistemological question, completely neglect the unanimous opinion of experts on these matters.

H. Gomperz (II. 1. 69) describes meaning as a relation. He argues in the following manner. What is it that means? It cannot be the word alone, for that is merely a collocation of sounds. A psychic element must be added to it if it is to mean anything, and that is the content (*Aussageinhalt*). It is a complex of word and content that has meaning. Gomperz calls this complex *sinnvolle Rede* or *Aussage*.

What is meant by the *Aussage*? It cannot be merely the referent (*Aussagegrundlage*) as such, for we have seen that a referent may be apprehended in many different ways (cf. 3.24). What is meant is the *Aussagegrundlage*, apprehended in a certain way, and this apprehension takes place through the content (*Aussageinhalt*). What is meant is therefore a complex of referent and content, which Gomperz calls *der ausgesagte Sachverhalt*. The relation between *Aussage* and *ausgesagter Sachverhalt* — into both of which the *Aussageinhalt* in a peculiar way enters — is *Bedeutung* (a term used only of actual meaning).

It is evident that Gomperz takes the problem from a logical point of view, while for my purposes I have to take the empirical psychological position. Nevertheless, Gomperz' masterly analysis of the interrelations of the three factors, word, meaning, and referent, is of the greatest importance, and his is the first tenable definition of meaning. It is regrettable that it has been so little noticed.

For further details on this matter I refer to Ogden-Richards (305 sqq.), who give a list of sixteen different types of definitions, with comments on them.

CHAPTER V

THE PRODUCTION OF SPEECH

5.1. *Introductory Remarks.* When the psychic processes connected with the production and comprehension of speech run their habitual course, the meanings of words remain stable. If, for some reason, a modification occurs in the habitual succession of mental events, a modification of meaning may ensue. In order to show, if possible, at what point in the process the changes set in, what items are modified, and for what reasons, it is necessary to compare the changes with the "normal" state of things. I shall therefore give, in this chapter and the following, a summary of present opinion concerning the processes involved in the production and comprehension of speech.

With regard to the production of speech, I shall try especially to ascertain at what point the *word* arises in the speaker's mind. If this occurrence takes place at a definite stage in the development of a thought intended for expression, it might be possible to gain some further data for the explanation of sense-changes. We should, so to speak, be able to ascertain the precise psychic situation in which the word arises, and thus perhaps to infer the influences to which its selection is subjected.

In normal speech, the words arise automatically in response to the impulse to say this or that, or perhaps merely the impulse to say something. The whole process is so instantaneous that it evades analysis. Similarly, comprehension of speech is normally an automatic process. A possibility of analysing the process is afforded in two ways; in aphasia, where the speech functions are more or less broken up; and by artificially retarding the speech process, for experimental purposes.

I shall first give a summary of some facts ascertained in modern research on aphasia, as far as they are of interest for the present work.

5.2. Research on Aphasia.

5.21. *Preliminary Remarks.* In the following account of aphasic defects I make use of H. Head's "Aphasia and Kindred Disorders of

Speech'', the most recent authoritative statement on these matters, and one that pays much attention to points that are of special interest to linguistics. The main points of Head's theories are to be found also in three papers in Brain and Brit. J. of Psych. (Cf. Cassirer, Phil. III 241 sqq).

Aphasia is, according to Head, a failure of the capacity for symbolic formulation and expression, a capacity that is indispensable for the perfect use of language. Symbolic formulation and expression ''is a mode of behaviour in which some verbal or other symbol plays a part between the initiation and execution of the act''. It is a purely descriptive term, and the processes to be included in it must be decided empirically (Head I 211, 399, 423).

The manner in which symbolic formulation and expression intervene in very simple acts is illustrated by comparison with acts of direct reference. ''Suppose some article such as a knife, or even a geometrical figure, is placed in his hand out of sight, the patient has no difficulty in selecting its duplicate, provided that no words are employed. Moreover, if he has been given a pyramid cut out of a block of wood, he can match it with any pyramidal object, however greatly the two may differ in relative size and structure. He deduces from the multifarious sensations yielded by his hand certain characteristics, which are also possessed by the object within sight, and ignores the many differences. In both percepts he reacts to a common quality, the pyramidal factor, although the one is the result of tactile, the other of visual impressions.

So long as the act to be performed is one of direct matching it can usually be excuted in spite of the defective use of language. But as soon as a symbol intervenes between the initiation and performance of any task, the patient is liable to fail to carry it out correctly. Suppose, for instance, he has succeeded in matching a single object shown to him with the one on the table which resembles it. If he is then given two objects at a time, he may fail to select the two corresponding duplicates, because he attempts to register what he has seen in words and to make his choice accordingly. A symbolic formula has been interjected and the act is no longer one of direct matching'' (Head I 517—518; 212, 385 sqq.; cf. also below 5.25).

It is the function of words as symbols that is disturbed by aphasia. I have distinguished above (2.22) between symbols and signals. We find this distinction corroborated here. ''There are certain acts of speech which have little or nothing to do with thinking, and neither state a proposition nor culminate in action. These remain unaffected in aphasia and kindred disorders. They comprise meaningless words and phrases, emotional ejaculations, such as "Oh! dear me", together with oaths and other familiar expletives. . .

Even in current speech there are many words which, though used idiomatically, have little distinctive meaning in themselves. Many ready-made expressions or clichés are employed habitually in order to start and maintain the progressive flow of speech. These are linguistic tricks, which enable the speaker to utter the essential contents of his mind, and many of them give emotional tone to an otherwise colourless phrase. I once took down the following sentence from the lips of an irate colleague: "(I'll tell you what it is,) he (jolly well) wants (to get) a (common or garden) secretary to make him answer his letters". All the words in brackets are logically unnecessary, but they helped him to express both his opinion and his irritation.

Slang closely approaches this order of verbal utterance. Many educated aphasics, when in difficulty, fall back on this more descriptive and ready-made method of expression" (Head I 516). The contrast here discussed comes out very clearly in comparing two kinds of automatic expressions or phrases constantly employed in everyday speech. "The one consists of ejaculations and phrases devoid of logical meaning, which serve to betray emotion or to form the preliminary to significant verbalisation. These escape altogether in aphasia, for they have little to do with systematic thinking. On the other hand, there are many acts of speaking and understanding spoken words, which, although they have become by practice almost habitual, remain endowed with significance. However great the facility of diction or of comprehension, these processes were developed out of formal thinking and still serve to secure that end. They consequently suffer severely in disorders of symbolic formulation and expression" (Head I 516; cf. 142, 385).

In a similar way visual images are affected in so far as they have symbolic value for thinking; see the quotation in 4.142 above.

Even if, primarily, the aphasic patient's intelligence is unimpaired, his defective power of manipulating language will not only make him appear stupid, but will throw him back on more primitive methods of thinking and acting. "If I am told to take the second turning to the right, I am precluded from choosing any one on my left hand and also the first on the right. But many aphasics, unable to comprehend or to retain the exact terms of a command, fall back on the method of trial and error. Having taken a false turning, they look around to discover that the objects actually in sight do not correspond with those they expected. They then cast back and explore other ways until, catching sight of some familiar landmark, they walk on confidently towards their goal" (l. c. 524). The severer forms of aphasia involve still greater disabilities, since logical thought is in the main impossible without the help of symbolic formulation and expression. The importance of language for thought comes out convincingly in such cases. "The lesion does not of necessity destroy the power to think, but one method by which thought is carried into action is disturbed. The patient is robbed of certain forms of effective symbolic representation and has lost the normal means of communicating with his fellows" (l. c. 394; cf. 418).

Head severely criticises the opinion that there are in the brain "speech centres" (cf. Fröschels 19—20, with various quotations, and Pick, Sprachstör. 21 sqq). It is true that a lesion of certain specified parts of the brain will lead to disorders of speech, but this shows only that such parts of the brain are "nodal foci, where central neural activities undergo integration and other changes in relation to one another" (Head, I 474). "An act of speech is a march of events, where one changing condition passes insensibly into another. When speech is defective, this easy motion or transition is impeded, one state cannot flow into another because of some mechanical imperfection in the process . . . The site of such a breach of continuity is not a "centre for speech", but solely a place where it can be interrupted or changed" (l. c).

5.22. *The Classification of Speech Defects.* Earlier theorists have distinguished motor and sensory aphasia, the former being inability to produce speech, the latter inability to comprehend it. Another theory distinguished defects of speaking, writing, or reading. These theories have been criticized by several writers (cf. Pick, Sprachverständnis), and Head rejects them as not compatible with the clinical facts (Head, Aphasia I 134 sqq).

Head's own point of view is that "the various disorders of speech produced by injuries of the brain manifest the ways in which the organism masters a situation, demanding the use of language, with a defective mechanism. A certain form of behaviour becomes necessary as a sequel to certain external or internal events; some normal facility is disturbed by the presence of the lesion and the orderly exercise of a series of functions suffers in consequence. A new attitude must be assumed; for the patient has to face a familiar situation with an imperfect apparatus. It is as if he were compelled to play lawn-tennis with a broken racquet; many of his favourite strokes will become impossible and he will have to vary his conduct in accordance with the defective instrument in his hand. The movements he adopts in consequence of these unusual conditions do not form integral parts of his normal method of playing the game. A man who has a pain in his toe walks differently from one whose heel is affected. But neither gait reveals the elements out of which normal walking is composed. Both are due to the assumption by the individual of a new functional attitude in face of abnormal conditions" (Head I 301). Similarly in aphasic disorders, the undisturbed functions do not go on as under normal circumstances, but adapt themselves to the abnormal situation, attempting to make up for the deficiency. Each case of aphasia represents the response of an individual patient to an abnormal situation (l. c. 428).

With due regard to these and several other points, which cannot here be detailed, Head considers that "we are justified in recognising the existence of certain classes of aphasia. For the clinical manifestations are so obviously different according as the loss falls mainly on one or other group of functions necessary for language in its widest sense, that some formal differentiation or grouping of the phenomena is necessary" (l. c. 220).

I shall give a brief summary of the main characteristics of the four classes of defects described by Head, keeping chiefly to those characteristics that are of interest to the present investigation. The overwhelming mass of details in Head's book makes a summary difficult, but I have attempted to bring out the most important points.

5.23. (1) *Verbal Defects.* "Any disturbance of this aspect of symbolic thinking and expression is revealed primarily by defective word-formation. The patient is unable to find the words he requires for ordinary conversation; in the severest cases he may be reduced to "yes" and "no", together with a few expressions, which he employs automatically or solely under the influence of emotion. So grave a disorder of articulated speech is always accompanied by some loss of power in writing and want of verbal memory for the content of sentences read silently. . . However fluent they may ultimately become, these patients always find difficulty in pronunciation. Words of more than one syllable tend to be slurred and shortened. No. 4 complained that he had difficulty with "tenical terms" (technical terms). "Yesterday", he said, "I had diff-ulty in remembering what you do with skull . . . tri . . . tre. . . trephine . . ." No. 6 spoke of "the claration of war by the Ollies" (declaration of war by the Allies). Moreover, especially in rapid conversation, words were dropped out in the struggle to convey the desired meaning; but there was none of that omission of the syntactical parts of speech which in other forms of aphasia leads to a "telegraphic style" of utterance. (Head I 221—228).

"These patients can draw, play card games and enjoy jokes set out in print or pictures. In fact, the disorder from which they suffer affects mainly verbal structure and words as integral parts of a phrase; their nominal value and significance are perfect, except for the disturbance produced by articulatory abnormalities which affect both external and internal speech" (l. c. 413).

Valkenburg states concerning one of his patients: "Mit der gehörten Rede wusste sie anfangs nichts anzufangen, sie sah den Mund des Sprechenden sich öffnen und hörte die Klänge, die ihr keine Worte waren" (Valkenburg 3). This was clearly a severe case, involving complete inability to combine the sounds into words. Further instances, see Pick, Sprachverst. 66, 68.

5.24. (2) *Syntactical Defects.* "This form of disturbance of language can be distinguished by the fact that the patient talks jargon. In other varieties of aphasia he may not be able to evoke the word he desires to use, and, in his efforts to find it, gives vent to sounds that do not correspond to any recognisable language symbols. If he is of a lively temperament he tries again and again to correct his faulty nomenclature and may fly to metaphorical expressions in order to circumvent his want of ability to express his meaning; but this cannot be described as true jargon.

On the other hand with a syntactical disorder of language the patient talks with great rapidity, when once started. Individual words may be recognisable, but the grammatical structure of the phrase is liable to be badly affected. He talks fluently in short jerky sentences, slurring or omitting many of the junction words. Even when they are present, it is difficult to hear the articles, conjunctions and other components necessary to a perfectly formed sentence. Asked what he had done since his admission into the London Hospital, No. 15 said, "To here, only washing, cups and plates. That's about all you've got to do here". "Have you played no games?" I enquired, and he replied, "Played game, yes, played one, daytime, garden". . . .

"Not only are the rhythmic movements of the phrase affected, but the internal balance of its constituent elements is disturbed. The patient cannot "touch off" the words so as to produce an accurately coherent sentence, and the articulatory rhythm of polysyllables tends to be disturbed". (Head I 230). "The phrase may be faulty and even single words are badly pronounced, although their nominal use and meaning remain intact. All those smaller words, such as articles and conjuntions, which bind together the more significant parts of the sentence, tend to be slurred or dropped. Speech becomes a series of disconnected categorical statements" (l. c. 239).

"These patients can understand the full meaning of pictures but they are greatly hampered by their jargon, if they attempt to convey to others or silently to themselves what they have gathered . . . This disorder is essentially one of balance and rhythm in symbolic expression, and syntax suffers greatly. The patient has plenty of words, but their production is ataxic and they are strung together without the usual connecting links. This leads to jargon and renders difficult even internal formulation of words and their meaning" (l. c. 414. Cf. Valkenburg 17—18, Isserlin 360 note, with a typical instance of "Agrammatismus"; Fröschels 84 sqq.; Laguna 245, who points out that the successful use of language depends on the ability to discriminate objects in their relations to one another, independently of their direct relation to the person who is speaking).

5.25. (3). *Nominal Defects.* "In this disorder of symbolic formulation and expression, we are not dealing with a difficulty in shaping words or phrases, but with a disturbance of their nominal significance. A name is a pattern which, if appropriately chosen, fits an external object or state of things around us. . . So far as (the patient) can find words they are enunciated correctly and united into coherent phrases. There is none of that profound disturbance of pronunciation which runs through all the utterances of the verbal aphasic; nor are the sentences jerky and ill balanced, as with the syntactical defects of language". (Head I 240—241).

"During the tests with colours, No. 2 made such gross mistakes that he might have been thought to be colour-blind; for white was called "green", black "red", and green "blue". Exactly the same kind of error occurred when he chose a colour from its printed name on a card; on this occasion he even chose white for black, and black for green. More or less similar mistakes were made by all the patients of this group, and No. 22 was sent to me as an example of aphasia with colour-blindness. But not one of them had the slightest difficulty in choosing, from amongst the colours on the table, that which matched the one I had shown him. From these observations we might be tempted to think that they had lost this knowledge of the nature of colour, that they were in fact "mind-blind". But No. 2, in his attempts to explain to me his difficulty in reading the printed cards, began to point to my white coat, to his khaki tie, the blue band on his arm which he wore as a wounded officer, and the green of the trees outside his window. Instead of the names of the colours, he was therefore encouraged to use a set of similitudes; black was "what you do for the dead"; red "what the Staff wear", or, pointing to the lapel of his tunic, "where the Staff have it", and so on" (l. c. 242).¹)

"Nearly two years after the injury No. 2 was able to fill up a cheque spontaneously; but he could not be certain that the written words and figures corresponded with one another. He drew a cheque in my presence for eighty-five pounds, ten shillings and sixpence, but filled in the figures as £80.10.6. He noticed this discrepancy and succeeded finally in making the correction; but the cheque would not have passed the bank" (l. c. 253).

"(No. 2) was above the normal average at chess, but could no longer play bridge; "The names of the cards bother me", he said. "It's just names; I used to play a good game at bridge" . . . These defects of speech consist essentially of loss of power to employ names together with want of comprehension of the nominal value of words and other symbols. Although the patient has plenty of words at his command, he may be unable to designate familiar objects; yet he can describe their use or composition, either directly or in some apt metaphorical phrase, and he can repeat anything said to him provided it is simple and easy to understand. Asked to point to an object named by the observer, he is unable to do so or makes his choice slowly and with effort. He

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¹) A similar case from Gelb and Goldstein, Über Farbennamenamnesie (Psych. Forsch. VI, 127 sqq.) is quoted by Weisgerber, GRM 14, 242.

reads and writes with extreme difficulty" (l. c. 256—257, 414; Valkenburg 17).

5.26. (*4*). *Semantic Defects.* "These patients tend to talk rapidly as if afraid of forgetting what they wanted to say; at times this actually occurs and the conversation tails away aimlessly. They suffer from no difficulty in pronunciation and, although the sentences may be somewhat short and jerky, syntax and intonation remain undisturbed. Pure verbal repetition is in no way affected. They can name common objects and indicate without fail the one that has been mentioned orally or in print. . . The fault is essentially a want of recognition of relative significance and intention. Everything tends to be appreciated in detail, but the general significance is lacking. This is evident, when the patient is given a picture and told to say what he sees in it. He looks at it like a child, pointing out one thing after another, and not uncommonly misses some important feature; asked what the picture means, he may be entirely at a loss and either gives up altogether or invents some preposterous explanation.

I showed No. 24, who was an ardent student of politics, a cartoon of Mr Lloyd George playing the harp from the same score as M. Briand, who held in his hand a French horn. After contemplating this picture for some time he said, "It's the Welsh Prime Minister with the Celtic instrument and the other man has a musical instrument, a blowing instrument. He's a foreigner probably; whether he's a French editor, I don't know". I then uncovered the legend beneath the picture, which ran, "The World's Premier Duettists", and he replied, "I don't understand it; it doesn't help me" (l. c. 257—258).

These difficulties "are due essentially to want of power to combine mentally into a single act a series of relevant details . . . manifested mainly in want of ability to appreciate and retain the ultimate significance or intention of words and phrases combined in normal sequence" (l. c. 261).

"In no other form was there the least difficulty in setting the hands of one clock in strict conformity with those of another, but patients belonging to this group tended to carry out this manoeuvre slowly, with hesitation, and might even become confused by what is little more than an act of matching. They were puzzled by the significance of the hands and failed to understand exactly what they were expected to do. As a rule they could tell the time correctly and this task was performed more easily than any other of this series of tests. But, when asked to set the clock in response to either oral or printed commands, the errors were extremely gross. The long and short hands were confused, "to" and "past" were mistaken and even the hour was wrongly indicated in some instances" (l. c. 262).

"These patients cannot play games such as chess, draughts or cards. Nor can they put together "jigsaw" puzzles. No. 8 complained, "I can see the bits, but I cannot see any relations between the bits; I could not get the general idea". This was revealed by his attempts to play billiards. He could hit a second ball directly and could pocket it with ease; but if he attempted to put his ball into the pocket off another, he not infrequently struck it on the wrong side. For the same reason he was unable to make a simple cannon and was incapable of bringing off any stroke from the cushion. He said, "I have so much difficulty in thinking out the scheme of it" (l. c. 266—267).

"This form of aphasia is characterised by want of recognition of the ultimate significance and intention of words and phrases, apart from their direct meaning. But other functions suffer that have no immediate bearing on verbalisation; for there is loss of power to appreciate or to formulate the logical conclusion of a train of thought or action.

The patient has no difficulty in forming words and can repeat what is said to him. But in general conversation his sentences tend to tail away aimlessly, as if he had forgotten what he wanted to say. Reading presents no serious difficulty; but the full meaning is liable to be misunderstood. These patients can write, but the results tend to be inaccurate and confused; for semantic defects are more liable to disturb the connected sequence of what is written rather than its verbal form. . . The patient's defects make him useless for any but the simplest employment; yet his memory and intelligence may remain on a relatively high plane. He has, however, lost the power to co-ordinate details into a general formula for internal or external statement" (l. c. 267—268).

5.27. *Remarks on Head's Theory.* I have devoted some space to this account of Head's theory, owing to its great interest for general linguistics, and especially semasiology. The speech activity is clearly complex; I have shown above (ch. 2) that it comprises various functions. It seems reasonable to assume that defects of speech affecting single functions might be distinguished. In other words, there should be a correlation between the results of normal psychology and pathology. Too much must not be expected in a branch of research that is so recent.

Verbal defects affect the ability to pronounce or comprehend words as totals having a meaning, an ability that clearly is of basic importance. Biologically, it presumably developed pari passu with the ability to use words as symbols; before that, there would be little occasion to work out a system of articulate sound symbols (cf. 2. 22). This matter falls outside the scope of my investigation.

Syntactical defects concern the ability to combine words into sentences; the capacity of grasping relations is somehow involved, but it is not quite clear from Head's account how we should interpret the facts in linguistic terms. The disturbance of "balance and rhythm" on which Head repeatedly insists, may be explained as due to defective apprehension of relations, since a speaker must grasp the logical interrelations and relative importance of a sequence of words if he is to know which of them to stress, and which to leave unstressed. The ability to grasp relations is obviously a basic condition not only of human speech but of all higher intellectual development; even anthropoid apes are very defective in this respect (see Laguna 227 sqq., discussing Köhler's reports). It is not a specific element of the speech activity, and so may be left aside here.

Nominal aphasia involves loss of power to employ names, together with a want of comprehension of the nominal value of words and other symbols, a defect that apparently affects the mastery of the symbolic function: the ability to make a correct objective reference from word to referent, or, conversely, to find the way from referent to word. In the cases reported by Head the failure to do this was not complete, since the patients could make their meaning known in a round-about way, by using their stock of unaffected words. This defect resembles the linguistic uncertainty described above (4.17); the patients were uncertain about the range of the words.

The semantic defects apparently concern the ability to co-ordinate the single meanings and to educe the relations between them (on eduction, see 4.265 note) in order to build up a coherent whole, and on the receptive side, the ability to analyse the speech into its constituent word meanings. Further, Head states that this is a "want of recognition of the ultimate significance and intention of words and phrases apart from their direct meaning" (5.26). It seems evident (cf. 2.13, 3.26, and 6.38) that the meaning of speech contains supra-summative elements, founded on the eduction of relations and correlates. It is also possible that such operations are not an adequate explanation of all elements of a phrase-meaning, especially with regard to the purposive function. At any rate, the understanding of a phrase-meaning presupposes the ability, not only to grasp relations between words, but also to educe further relations and correlates, and possibly also to grasp additional configurational qualities, not wholly explicable as the result of eductions. (Cf. 6.38). The purposive function of speech is probably based on such supra-summative elements of phrase-meaning. Semantic aphasia would then be the inability to perform the mental operations involved in deducing the phrase-meaning from the basic data provided by words and context. The instance of the political cartoon quoted in the preceding paragraph is a good illustration.

Head reckons among the symptoms of this type the lack of orientation, the inability to set the hands of a clock, to lay the table, or to describe a picture with proper stress on its main features. I suggest that such symptoms should be explained as due to the inability to see in the respective situations the intrinsic pattern or configuration. One must be able to grasp the pattern of a picture in order to have one's attention carried to the main features, giving them their due prominence, and neglecting what is merely the filling in of outlines. Lacking this pattern, a picture is a jumble of details, and the patient has no guide in discriminating what is important from that which is not. He will be liable to miss the essential points, and to dwell on subordinate details that happen to catch his eye. Similarly in orientation. In laying the table it is necessary to be able to correlate the function of the various pieces, and in setting the clock to correlate the function of the hands to that of the figures on the face. Whether this process should be described as an analysis of relations within the complex total, or otherwise, is a problem that I have to leave open. We are dealing here with the most obscure phase of the speech process, on which normal psychology has as yet very little to tell us. One point that requires elucidation is the distinction between syntactical and semantic defects, in terms of linguistics and normal psychology. Both types are concerned with relations. — Some further remarks on these matters will be made in later paragraphs.

Among those who have criticized Head's theories, van Woerkom suggests that, in order to construct a perfect phrase, we must be able to apprehend correctly relations in space and time. He thinks that in some of Head's instances it would be better to explain the disorder as a lack of the notions of time and space, rather than as a disorder of symbolic thinking.¹) The symbol appears at a relatively late stage of linguistic development, when the spatial relations are already established, and the sense of rhythm is being formed. These two functions are essential to the further development of symbolic thought (Woerkom 730 sqq.; cf. Isserlin, and Fröschels 35 sqq.).

5.3. The Evidence of Normal Psychology.

5.31. *Sentence Definitions. Paul and Wundt.* Opinions concerning the production of speech have sometimes been expressed in the form of a genetic sentence definition. Paul, and many others, considered a sentence as a synthetic formation: "Der Satz ist der sprachliche Ausdruck, das Symbol, dafür, dass sich die Verbindung mehrerer Vorstellungen oder Vorstellungsgruppen in der Seele des Sprechenden vollzogen hat, und das Mittel dazu, die nämliche Verbindung der nämlichen Vorstellungen in der Seele des Hörenden zu erzeugen" (Paul. Prinz. 121).

Wundt, on the other hand, regarded speech formulation as an analytic process: "(Ein Satz ist) der sprachliche Ausdruck für die willkürliche Gliederung einer Gesamtvorstellung in ihre in logische Beziehungen zu einander gesetzten Bestandteile" (Wundt II 248).

The controversy on this point is well known: it does not concern us except in so far as the method of speech formulation is involved. Is it synthetic or analytic in character?²)

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¹) Cf. on this point Selz I 174: Demgemäss erhalten wir durch die Bildung umfassender Komplexe eine doppelte Ordnung unserer Bewusstseinserlebnisse, bezw. ihrer Reproduktionsgrundlagen: 1. eine räumlich-zeitliche Ordnung, 2. eine Ordnung durch Beziehungsverknüpfung, in welcher die einzelnen Gegenstände des Bewusstseins als Glieder vielfach zusammengesetzter Sachverhältnisse erscheinen.

²) I refer the reader to the following writers who have dealt with this subject from various points of view: Sütterlin 144, Delbrück 136, Oertel 280, Bühler, Satz 12 sqq., Fröbes II 250, Delacroix 207 sqq., Gomperz II. 1. 58, 239, Pillsbury-Meader 254 sqq., C. Bühler 194 sqq.; Pick, Sprachstör. 130 sqq.; Stern, Kindersprache 179 sqq.; cf. also Wundt II 252 sqq., and 4. 27 above.

The problem has been investigated experimentally by Selz. He gave his observers a word which they were to define in a sentence, reporting immediately on the mental process leading up to the final formulation. I shall give a summary of his results (cf. also Willwoll 35 sqq., and Selz II 362 sqq. on other investigations).

5.32. *Sentence Formulation according to Selz.* Selz found that sentences may be formulated in more than one way, and he has tabulated his results in the following manner. "I. *Die Satzreproduktion,* die insoweit stattfindet, als der Sprachinhalt schon vor Beginn der Formulierung feststeht und nur reproduziert zu werden braucht. — This type is of no further interest to me.

II. *Die Satzbildung,* bei der der Sprachinhalt erst neu zu finden ist. Je nachdem auch der Gedankeninhalt erst neu zu finden ist, oder schon feststeht, ergeben sich hier zwei Unterfälle.

A. Der Gedankeninhalt ist schon gegeben und braucht nur zum Zwecke der Formulierung auseinandergelegt zu werden. Dies ist der Fall der *analytischen* (*nachträglichen*) *Formulierung.*

B. Der Gedankeninhalt ist ebenso wie der Sprachinhalt neu zu finden. Im Gegensatz zu den beiden bisher erwähnten Aufgaben der Satzreproduktion und der Satzbildung bei bereits feststehendem Gedankeninhalt, fanden wir für die dritte Aufgabe der Satzbildung bei erst zu findendem Gedankeninhalt zwei verschiedene Lösungsformen vor:

a) *die phasenweise Formulierung,* bei der Gedankenentstehung und sprachliche Formulierung parallel nebeneinander herlaufen;

b) *die synthetische* (*nachträgliche*) *Formulierung,* bei der die zusammenhängende Formulierung erst nach abgeschlossener Gedankenentstehung bei der Zusammenfassung des sukzessive gefundenen Gedankeninhalts einsetzt" (Selz II 361).

Note that all this refers to the *mental* operations preceding the verbalization or accompanying it. The formulation of the *linguistic* sentence is, according to Selz, always a synthetic process, a process of analogy founded on linguistic schemes (l. c. II 362).

I shall give some details concerning each of the three types.

5.33. *Analytic* (*Posterior*) *Formulation.* It will be useful to give first a typical instance.

Stimulus word: Stiftung. *Task:* Definition. *Report:*[1]) "Wusste von vornherein, dass die Aufgabe nicht schwer fallen würde, weil mir der *Begriff* der Stiftung nach meiner Meinung *völlig präsent war, so dass ich ihn vermeintlich nur in Worten auseinander zu legen brauchte*, um eine Definition zu finden. Es war sicher die völlige Klarheit des Besitzes da, nicht nur die Klarheit, *dass* ich den Inhalt besitze, sondern auch *der Inhalt* selbst. Ich meine, *es liegt alles darin, was später in die Definition kommt;* es liegt in einem Male so darin, *ich brauche es nur herauszuziehen.* Ich fing an, mir den Begriff deutlich zu vergegenwärtigen. Es lag darin, dass Kapital, Zins und bestimmter Zweck vorhanden sei, für den die Zinsen aufgebraucht werden. Jetzt habe ich erst versucht, auf Grund dieser Elemente eine Formulierung zu bilden... "Eine Stiftung besteht darin, dass ein Kapital zu einem bestimmten Zweck gegeben wird, dessen Zinsen... "(Nun würde gekommen sein: "zu diesem Zwecke verbraucht werden sollen". Diese Wiederholung sucht die Versuchsperson durch das Folgende zu vermeiden:) Da merkte ich, dass ich die Zinsen sofort auf den Zweck beziehen müsste. Ich begann von neuem: "Stiftung besteht darin, dass ein Kapital gegeben wird, dessen Zinsen zu einem bestimmten Zwecke verbraucht werden sollen". *Ich erinnere mich nicht, jemals eine Definition von Stiftung gehört zu haben*" (Selz II 311).

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[1]) Passages in brackets are explanations added by the observer in reply to questions from the experimenter. — Selz' italics.

In this form, as in synthetic formulation, the mental content of the sentence is already more or less clearly present to the mind of the speaker before the verbalization sets in. If the task is a definition, the content of the defining sentence is present in the form of a unitary total which has to be differentiated into its elements and their relations; these elements and relations then require to be denoted by words.

This form agrees in the main with Wundt's theory, with the reservation that the total notion (*Gesamtvorstellung*) need not necessarily be a total in imaginal form (*ein anschauliches Ganzes*) but may consist of an awareness of meaning, comprising all the characteristics of the notion, but not represented by *"eine einheitliche anschauliche Sachvorstellung"*.

The process of differentiation operates on material already present in an un-analysed form, and Selz therefore calls it *nachträgliche* Formulierung. The verbalization is analogous to that in the "gradual" form (5·34), especially with regard to the influence of linguistic schemes on the order in which the various elements of the mental content are made the subject of analysis (Wundt: *Apperzeption*). The linguistic scheme, as for instance the scheme of a defining sentence, thus contributes in determining the progress of mental analysis. Language is not only a means of expressing the result of analysis, but through the determining action of the linguistic schemes used, it is also a *method* for the analysis of a thought, a concept, or a sensation.

As in the gradual type, it is the most general characteristics of the mental content, — those that are first clearly apprehended or else known from the task (the instruction), — that make possible the employment of a definite linguistic scheme, determining the use of further schemes, and guiding the process of differentiation. Thus, when the task was known to be that of defining a notion, the observers were influenced into using the scheme of a defining sentence, and when it became apparent that the content of the notion was an activity, this led to the use of a specialized scheme: *"x besteht darin, dass . . ."*.

The collaboration of linguistic schemes in the formulation of previously known mental content makes the actualization and production of words fluent and continuous, and the underlying mental processes become elusive and difficult to analyse. But this must not lead us to suppose, with Wundt, that a ready-made sentence lies under the linguistic formulation as a simultaneously present totality, which has only to be differentiated into successively apprehended parts. (Wundt II 244). As in the gradual type, the sentence originates with the actualizing and filling in of the linguistic schemes. The analytic process concerns only the mental content. The verbalization, here as elsewhere, is a synthetic process, a process of combination (l. c. 350—352).[1]

5.34. *Gradual Formulation.* I shall first give some instances. — *Stimulus word:* Gewalt. *Report: "Gewalt ist die Fähigkeit, etwas anderes in Schranken zu halten . . . . Ich fing die Definition immer an mit Sätzen "Gewalt is die Kraft . . .", "Gewalt ist die Macht . . ." (Der bestimmte Artikel weist hier schon deutlich auf die Antizipation einer näheren Bestimmung hin).* Das schien mir aber nicht angängig, solche Worte zu gebrauchen. Dann war so eine Verwirrung da die ganze Zeit, ein Auf- und Abgehen und Suchen, bis ich auf einmal fand: *"Gewalt ist die Fähigkeit . . ." Da schien es mir, als ob ich ein harmloses Wort für die Definition gefunden hätte. Dann ging ich (zunächst) nicht im Satz weiter, sondern suchte jetzt charakteristische Eigenschaften herauszufinden (die in*

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[1] Successful schemes are more easily reproduced again, Selz II 535; see Bühler Arch. 12, 85 sqq. on the importance of the sentence-schemes.

dem durch den bestimmten Artikel schon vorbereiteten Infinitivsatz formuliert werden sollen). Dann kamen die Worte "herrschen", "in Schranken halten"; "bedrücken" war auch da. Dann habe ich den mittleren Ausdruck herausgenommen ... Ich wollte die Definition noch einmal leise vorsagen, platzte aber laut heraus: Gewalt ist ..." (l. c. 317).

Stimulus word: Hypothek. *Report:* "Garantie für geliehene Kapitalien, die in Grundstücken und Gebäuden besteht ... Das erste, was kam, war das Wort Pfand, einfach das Wort ... das lehnte ich ab mit dem Bewusstsein, dass es etwas anderes ist. Dann kam das Wort Garantie. Beides sollte die Funktion der Sicherheitsleistung bezeichnen, aber das war nicht ausdrücklich gedacht, es kamen einfach die Worte. Ich war sehr froh, wie ich das hatte, weil ich dachte dadurch der Lösung näher zu kommen. Jetzt dachte ich, *wofür* ist es eine Garantie, das suchte ich. Ich dachte zuerst an Schulden. Es war das Wort da. Das wollte ich aber nicht gebrauchen, warum weiss ich nicht. Dann kamen auf einmal die Worte geliehene Kapitalien ... Entschloss mich "geliehene Kapitalien" zur Definition zu verwenden. Ich sprach innerlich: "Hypothek ist Garantie für geliehene Kapitalien", wollte damit aufhören. Im diesem Augenblick fiel mir ein, dass ich dabei das Wesentliche der Hypothek vergessen hatte, nämlich dass es darauf ankommt, dass Immobilien belastet sind. Ich zwängte das in einen Nebensatz hinein. Nachdem ich das hatte, versuchte ich das noch in einen Hauptsatz hineinzubringen, was mir aber zu kompliziert war; dann habe ich reagiert" (l. c. 290).

A sentence may be produced gradually, in due order, even when the content of the sentence as a whole is not known in advance.[1]) It is apparent from the reports, that the gradual formulation may begin at a moment when no elements of the definite content of the sentence are as yet settled. This is possible owing to the fact that in our awareness of purpose (*Zielbewusstsein*) there are anticipated certain very general characteristics of the content about to be evoked, and that these characteristics are linked up with (*zugeordnet*) a definite linguistic scheme. This scheme is first actualized, and helps to determine the subsequent process. Thus, to the general awareness that the sentence is to contain a definition, there corresponds the scheme of an "is"-sentence. To the only slightly more determinate awareness that it is a definition of an activity, there corresponds the sentence scheme: *"x besteht darin, dass. ."* This *abstract* sentence scheme, in being actualized, by its determining function performs that task in maintaining the coherence of speech which Wundt attributed to the *concrete* total notion (*Gesamtvorstellung*).

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[1]) Jespersen, Grammar III. 10. 53, and Müller-Freienfels, Einfluss 422 quoting H. von Kleist: l'idée vient en parlant. Cf. 5.37 below.

The scheme is not only a syntactical scheme, but also a *sense* scheme, or *logical* scheme for the sentence. It anticipates the parts of speech that are to be selected for its completion, not only with regard to their syntactical categories, *e. g.*, as nouns or verbs, but also with regard to certain general sense characteristics and logical categories. Thus the scheme of a defining "is"-sentence not only anticipates a noun to follow the copula, but also determines the sense of this noun more or less clearly as the designation of a genus, to which belongs the species or individual to be defined.

The progress of the gradual formulation is conditioned by the progress of the differentiation of mental content on which the scheme is founded. Thus, in defining a notion, the necessity may arise of determining more particularly the designation already given. The nature of this specialization is generally more or less definitely settled by the nature of the previous definition. Every further development of the thought brings as a consequence the initiation of corresponding linguistic processes of formulation. The mere awareness that a further specialization has to follow, may bring about the actualization of a linguistic formula in the shape, *e. g.*, of a relative clause, corresponding to the general determination. The awareness that the purpose of an object must be explained may lead to the actualization of a relative clause of the type "which serves as . . .". (Cf. similar observations by Bühler in recollection experiments, Arch. 12, 33—34).

The continuation of the gradual formulation does not set in until the concrete mental content of the new phase is already settled, when, for instance, in addition to the fact that a more particular definition is to follow, and the direction in which it will lead, its content also is more particularly present in mind. But here, too, we are able to distinguish two elements in the mental content of the phase to be expressed: 1) an awareness of the relation in which the sequel stands to what precedes, *e. g.*, that it is a more particular attribute, or more specialized, or an attribute indicating the end to be served by the object previously mentioned, 2) an awareness of the *objects* that stand in this relation.

The first factor leads to the employment of a linguistic scheme suitable for the expression of such relations, for instance, a relative clause. The second factor leads to the word for each referent being at once, on the actualization of the linguistic scheme, placed in its right position, so that for instance the scheme of a relative clause is already complete on coming to mind. Especially remarkable in this connection is the high degree of abstraction peculiar to the mental content with which the linguistic schemes are linked up (*zugeordnet*). In one case the scheme of a relative clause is reported as being evoked by the general intention to qualify the preceding noun more particularly *in some way*.

In gradual formulation, the expressions already determined condition the selection of words for the sequel. Thus, if a definition is started with a noun, denoting the genus, the particular determination to follow can be expressed only by a phrase capable of being added to a noun, a relative clause or a prepositional phrase. It is no longer possible to use an attribute preceding the noun, or a similarly placed prepositional phrase, which can always be done in the case of posterior formulation. The latter has therefore the advantage of permitting a free choice in the arrangement of words.

The linguistic operations which give to the sentence its logical-syntactical form correspond neither to a general *Regelbewusstsein* nor to concrete imagery, but to the often very abstract determinations of mental content and of the preceding and following linguistic content which we have called its logical-syntactical structure. This double dependence of the linguistic operations on the logical structure of the mental content and on the syntactical structure of the preceding linguistic content, shows not only the extraordinary abstractness but also the complexity of these correspondencies (*Zuordnungen*). Concerning their origin during the acquisition of language, we are quite as ignorant as we are about the correspondence between a linguistic expression and the corresponding combination of mental content in the comprehension of speech. We may safely assume that at the first actualization of the various linguistic operations an important part is played by the analogical re-construction of *experienced* combinations between, on the one hand, a certain *logical* structure of the sentence, and, on the other hand, the employment of a determined linguistic means of expression (Selz II 339—349).

5.35. *Synthetic (Posterior) Formulation.* The following is a typical instance. *Stimulus word:* Krieg. *Report:* ''Krieg ist ein Austrag eines Völkerstreits mit Waffen . . . Ich habe es gelesen. Zustand der Sicherheit; ich kann das machen. Dann kam mir als erstes das Wort Kampf, und weiter: nicht jeder Kampf, das wurde aber nicht gesprochen. Dafür war ein ganz flüchtiges, unbeständiges Bezogensein auf zwei kämpfende Menschen massgebend. Ich betone, dass das nicht so sein soll, also nicht zwei einzelne. Dann kam das Wort ''Volk'', ich wusste aber schon vorher genau durch den Gegensatz des Nichteinzelnen, was ich meinte. Das Wort kam als Bezeichnung für dieses Gemeinte. Bei ''Volk'' (ausser dem Wort) nichts Sinnliches. Darauf das Moment des Gegeneinander, das vorher schon in dem Sinnlichen lag. Ich nam es wieder auf und verallgemeinerte es, und zur Bezeichnung fand ich das Wort Streit, natürlich nunmehr auf das Volk bezogen (statt des spezielleren Kampf. Wie das Folgende zeigt, ist Völkerstreit die geeignetste nächsthöhere Gattung), und nun musste ich dieses Allgemeine (den schon als Streit zweier Völker näher bestimmten Streit) wieder spezialisieren: Nicht etwa diplomatischer Austrag, sondern ein anderer Austrag des Streites. *Auf diese Spezialisierung war ich gerichtet,* ohne dass es so ausgedacht wurde. Vielleicht kam mir darauf das Wort Waffen. Dann habe ich es zusammengefasst. Kurzer Rückblick, ich sagte dann ja, fing an zu sprechen und wusste, es würde richtig herauskommen, z. B. ergab sich dann das Wort ''Austrag'', und ''Völkerstreit'' (die Zusammensetzung) ganz von selbst. Diese Worte waren vorher nicht da'' (l. c. II 296).

The analytic formulation takes place with the help of an analytic differentiation of previously undifferentiated mental content. Synthetic formulation, on the contrary, consists in the combination of elements of content which arise one by one and at first are distinct from each other. Thus, for instance, the various elements required for a definition are found singly, and afterwards combined into a defining sentence. Such elements do not arise entirely unconnected, but each added characteristic appears as a further determination of a previous one, leading in a definite direction, and the process is continued until we are aware that the materials for the definition are complete, when the ultimate synthesis takes place (cf. Bühler, Arch. 12, 89—90, and Pick, Sprachstör. 210 sqq.). Paul's definition of a sentence as the expression of the fact ''dass sich die Verbindung mehrerer Vorstellungen oder Vorstellungsgruppen in der Seele vollzogen hat'', thus fits this type, but not the other two.

As already pointed out, the linguistic formulation, the verbalization, is, in contrast to the mental process, always of a synthetic nature. The former always consists in the actualizing of linguistic schemes, and the filling of them with new concrete elements. The synthetic nature of the linguistic formulation is especially evident in cases where the various characteristics of the notion, as soon as they are found, are fixed by means of words, which thus form a kind of framework for the sentence. The words are at first syntactically unconnected, and are combined into a sentence, by the insertion of words denoting the relations between their referents.

The entire structure underlying the mental content recalls the parataxes of child language or primitive speech, which are characterized by the lack of designations for the relations between referents (cf. aphasia!). In both cases the indispensable elements of characterization and linguistic expression are included, while the relations between them may be supplied in thought by the hearer as well as by the speaker. In the case of sentence formation their designations may therefore be left until the stage of verbalization. The expediency of this abrupt inner speech, which sometimes also accompanies the gradual type of formulation, is a sign that we have here to do with determined processes which are of value for the fixation of thought, as well as for the preparation of the connected formulation, and thus are to be regarded as methods of solution.

The synthetic type of sentence formulation is a kind of inversion of the gradual type, in which the sentence scheme was actualized before any of the concrete elements to fill it were yet present in mind. In the synthetic type these concrete elements are first designated, and subsequently, in the linguistic formulation, the verbalization, inserted into the appropriate linguistic scheme (as Streit, Volk, Waffen, in the instance quoted). In this case, as in the gradual type, we have to assume that linguistic schemes sometimes collaborate from the beginning in the constructive process, determining the order in which the single characteristics arise in the mind and receive their names (l. c. II 352—360).

5.36. *Remarks on Selz' Theories.* I have devoted some space to a summary of these experiments as I consider them of interest for the matter in hand (see 5.5), and I believe that they are comparatively little known among philologists. This applies especially to the "gradual formulation". The two other types are more familiar, owing to their definition by Paul and Wundt. Whether the analysis and classification given by Selz are correct or not, one thing appears to be established: — sentences are formed in more ways than one. I shall return to this point later on.

With regard to the frequency of the various types in ordinary discourse it is impossible to say anything with certainty, but it would appear likely that the gradual type is rather more common in everyday speech than in experiments of the kind made by Selz. With one reservation, however: Selz shows us the processes retarded by difficulties; the observers have problems to solve which occupy their attention with regard not only to import but also to verbal formulation. In ordinary discourse, we only occasionally have to pay any attention to the verbalization, which is left to lower centres. The verbalization is practically automatic, and the syntactical structure is correspondingly simple. Analytic or gradual formulation would appear to be most natural in cases where the referent is familiar enough to be immediately grasped as a total; while the synthetic and the gradual types would appear to be specially suited for the solving of problems. The referent then requires to be thought out. In writing, Selz thinks the synthetic type more common, which sounds probable. — On other similar results, see Selz II 362 sqq., C. Bühler 183.

5.37. *Linguistic Automatism.* The complex series of mental events involved in sentence formulation is made the object of conscious attention only when, for some reason, the processes are retarded. The speaker may then proceed like a careful writer who selects his phrases with regard to their grammatical correctness, their appropriateness to the topic, and the intended effect on the listeners.

In normal easy speech this is not so. Most links in the chain are automatized through long habituation, and the initial impulse to speak normally releases the speech process. We are not conscious of the movement until we have already spoken, nor are we conscious of constructing the phrase, although it issues in perfect syntactical form. We sometimes even learn our thought from our words, when the impulse preceding speech is so vague that it is differentiated and recognized only through its effect: — the sentence which is pronounced. We go direct from thought to words, or even from the event which provokes an utterance to the utterance itself. We learn that we are thinking by hearing ourselves speak (Delacroix 404—408).

Even when we experience a precise impression and an impulse to express it, the words used are not expressly willed, they arise automatically. Speech, like other complex actions, is based on a substructure of reflex actions accumulated gradually from childhood. The conscious mind only releases the process. The performance of the first phase releases the second, and so on. In most cases we only perceive the point of departure, the signal that determines the act in time, the correlations which determine it in space, and the objects and persons to which it refers (Delacroix 361—362. Similarly Müller-Freienfels, Vorstellen 415 sqq., Head, Brain 46, 426—428, and Aphasia I 440—441).

Automatism and conscious control are equally indispensable. Without purpose and intention, the mechanism of speech is nothing but automatism and repetition. Without automatism, the finality remains nebulous. To speak and to comprehend speech is to use the most profound processes of thought as well as an extremely familiar mechanism of intellectual and sensori-motor habits (Delacroix 370, 361).

In speaking and in comprehending speech the process constantly fluctuates between more and less conscious control and interference with the automatic mechanism. Easy phrases in our own language are produced and understood with a minimum of conscious effort. When the mental content is more difficult to formulate in words, the speaker has to turn more of his attention to the verbalization and the syntax, and similarly, in comprehending speech, the listener has to reflect on the meaning of words and attend consciously to their interrelations.

Delacroix (362 sqq.) accepts Head's results as indicating the elemental functions out of which the perfect speech function is composed, and consequently assumes the existence of four groups of automatic functions.

The first of these is the formation of auditory and articulatory habits, and the construction of the corresponding images. The establishment of a co-ordination between audition and phonation is perhaps prior in time. This is the first serious task of the child in learning to speak, and its difficulty is apparent from the fact that it takes about two years to learn. If this function is disturbed, we have the form of aphasia termed by Head verbal defects. Superior functions of language may still be in order; the rules of the game persist, but the counters are missing or damaged.

Secondly, words have meanings, to which they are linked. The habitual connection of word and meaning constitutes a second group of automatic functions. This connection is destroyed in nominal aphasia. The counters are there, in their articulatory or visual form, but their value in the game is lost.

Thirdly, the formation of relations has become an automatic function in normal speech, based on habit and memory. When this function is disturbed, a person may be able to use words, but not to combine them. Pick calls this agrammatism; it results in a telegraphic style, *parler nègre* (Head's syntactical defects).

Finally, the speech function involves the ability to grasp the ultimate meaning of phrases apart from the verbal meaning, to understand the final aim and purpose of action. This function may also be more or less automatized. If it is destroyed, language loses its significance. If verbal automatism persists simultaneously, speech will exceed thought, and the patient will speak without saying anything: there are more words than ideas.

All these automatisms are so many economies of effort. They have once been conscious, but as they become habitual they come to be performed without conscious effort and permit us to grasp instantly in the form of a swiftly envisaged pattern masses of detail which are thus handled as units. If so many elements of the speech-function were not automatic, we should constantly be confronted with the task of consciously performing an overwhelming number of acts.

The remarks on Head's theories above (5.27) and the account of Selz' experiments will have shown that we can make some additions to Delacroix' list. The first is the ability to grasp relations in time and space, if van Woerkom is right on that point (5.27). The second, more important and more clearly demonstrated, is the existence of automatic sentence schemes.

The importance of sentence schemes will have become clear in the preceding paragraphs. With regard to their formation, Selz states that they are the result of successful solutions of a task for which the use of language was the necessary instrument. When they have become sufficiently familiar, they are actualized automatically in the presence of similar tasks, simply through the awareness of the task and the purpose to be attained: the combining (*Zuordnung*) of purpose and instrument (= the sentence scheme) is due to a prior use of this instrument for the same purpose. It is what Selz calls *routinemässig determinierte Mittelaktualisierung.*

In other cases the process is not entirely automatic. The definite apprehension of the purpose (*die konkrete Zielsetzung*) leads to a finding of the instrument either through inference, or on the basis of previous experience. This is *determinierte Mittelabstraktion mit nachfolgender Mittelanwendung.*

Finally, cases occur in which the apprehension of the purpose grows out of the discovery that such a purpose can be attained by means of some process more or less accidentally found. Or, as Selz formulates it, "die Zuordnung von Ziel und Mittel beruht auf einer der konkreten Zielsetzung vorausgegangenen Abstraktion eines Wertwirkungszusammenhanges, nämlich des Verhältnisses zwischen einem tatsächlichen Vorgang und einem durch ihn bewirkten unbeabsichtigten wertvollen Erfolg". This type is not, I think, so important for the matter in hand (Selz II 680 sqq.).

On this theory, it is the conscious apprehension of the purpose that releases the automatic functions adapted for the accomplishment of the purpose (Cf. S. Meyer, Zs. f. Psych. 65, 97: bei der Mechanisierung wird die Zielvorstellung zur einheitlichen Vertretung beliebig grosser Reihen). If the means had to be laboriously found and attended to detail by detail, we should not be able to perform more than a fraction of what we really do every day. The helplessness of aphatics in many situations of daily life shows our dependence on the undisturbed possession of these acquired automatisms.

5.4. Temporal Relations in Speech Production. The two points of interest for the present study are the following: (1) What can we say concerning the temporal relations of the psychic acts in the process of speech production? (2) At what point in the process do words arise in the speaker's mind?

Van Woerkom (J. de Psych. 724) states that the development of an idea for the purpose of verbal expression passes through the following phases: (1) the conception of the total (compound) idea; (2) a psychic process of analysis and synthesis in time and space; (3) the conception of the sentence scheme, without verbal symbols; and (4) the choice of words. Pick inclines towards a similar view, although he expressly states that the various processes may follow in any order (Pick, Sprachstör. 232—234, 247). Delacroix thinks that Pick and van Woerkom are too fond of an hierarchical order, but he, too, assumes that the initial phase is always "une aperception simultanée et d'abord synthétique" which is subjected to a "décomposition successive" (Delacroix 405).

It seems to me that in view of the results gained by Selz such an opinion can no longer be upheld. Whatever we may think of his classification, the reports of his observers show a variation that is too well established for any one form of mental formulation to be the only norm. A pre-verbal phase of "gedankliche Gliederung" follows on the preliminary adjustment (see below) only in analytic formulation, while in synthetic formulation the words appear in support of the successively arising thoughts and the advancing mental differentiation. In gradual formulation the sentence scheme collaborates from the beginning, providing a frame-work for the mental differentiation.

Head definitely opposes any theory of a fixed temporal succession of the elemental functions composing the perfect speech function. "Speech, examined introspectively, appears to be a progressive act, which may be analysed into events appearing at separate moments of time. As a gun is aimed, the trigger pulled and the cartridge explodes, so it would seem as if we first think of what we want to say, then select the terms in which to express it and finally embody them in words and phrases. But this is certainly a misleading and fallacious method of stating what actually occurs. An act of speech comes into being and dies away again as an alteration in the balance of psychophysical processes; a state, never strictly definable, merges into another inseparable from it in time. When this transition is interrupted and the evolution of a perfect response is prevented by physical causes, fresh integration becomes necessary and new phenomena appear. These in no way represent temporal elements in a series of normal events. Unimpeded symbolic formulation and expression cannot be analysed into a sequence of semantic, nominal, syntactical and verbal processes which normally follow one another in time . . . Had these reactions corresponded to the constituent parts of an orderly sequence in normal speech, disturbance at some definite point in time would have prevented the development of all those processes which followed later in the series. This is certainly not the case; these disorders of speech do not reveal the normal order of psychical events" (Head I 509). At a later page Head recurs to the question, quoting Pick and van

Woerkom, and states that such detailed analysis is a mistake "because an act of speech does not come into being and run its course in this diagrammatic manner" (l. c. 530).

Head's view is, I think, corroborated by what Selz has found for the normal processes. The assumption of a strict succession: compound total idea + mental differentiation + linguistic formulation + verbalization, cannot be considered as tenable. The various elementary functions are operative more or less during the whole period of preparing for expression. Cf. Spearman's analysis of growth on different levels in the process of comprehension, which, I think, is also applicable to the production of speech (cf. 6.4, and Selz II 318—319).

However, we need not completely give up all attempts at establishing a succession of events in speech production. I think that we should assume that the first phase in the process is always the adjustment to the extant situation (the *Stellungnahme*) to which Pick especially has called attention (Pick, Sprachstör. 138 sqq.).

Pick quotes a number of writers who have emphasized the adjustment (*Stellungnahme*) as essential for speech. C. & W. Stern (Kindersprache, 179 sqq.) define the sentence as "der Ausdruck für eine einheitliche (vollzogene oder zu vollziehende) Stellungnahme zu einem Bedeutungstatbestand", and state that "Vorstellung nur das indifferente Vorhandensein eines Bewusstseinsinhaltes gegenständlicher Art, Stellungnahme dagegen ein alternatives Verhalten eines einheitlichen Subjektes, ein Anerkennen oder Leugnen, Zustimmen oder Ablehnen, Wünschen oder Fliehen, Loben oder Tadeln bedeutet" (Pick l. c.).[1]) Müller-Freienfels (Einfluss 392) defines *Stellungnahme* as all the reactions arising in our organism in response to an impression from the outside, or to its reproduction. Especially do feelings and emotions belong to it, together with volitional elements (Cf. Cassirer, Phil. III 317—318, quoting Hughlings Jackson, Brain 38 (1915) p. 168; Boll 694).

I have assumed above (2.13) that speech (perhaps the sentence, at any rate the complete utterance) possesses a fourth function, not found in the meanings of isolated words, *viz.* the purposive function. In agreement with this assumption we now find that speech also expresses more than the isolated word: it expresses the adjustment of the subject to the situation in hand. Indeed, this would appear to be an indispensable condition if speech is to perform its purposive function.

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[1]) Compare Gardiner's sentence definition: "A sentence is an articulate sound-symbol in its aspect of embodying some volitional attitude of the speaker towards the listener". And his definition of word: "A word is an articulate sound-symbol in its aspect of denoting something which is spoken about". Gardiner 355.

We may regard a situation calling for speech as setting to the individual a task which he has to perform with the help of speech. I have defined speech as an instrument for the promotion of purposes. The employment of an instrument for any purpose naturally pre-supposes that the user of the instrument adjusts himself, and as far as possible the instrument also, to the demands of the task and the intended purpose. In whatever way the verbalization is prepared, it seems to me that an adjustment must precede it.¹)

In many cases it is evident that the choice of the sentence-scheme must be preceded by an adjustment to the situation, that is, especially to the referent and the interlocutor. If we were not adjusted, before we begin to speak, for instance, to making a concession, we should not get the correct intonation from the beginning of a concessive clause. (Pick, Sprachstör. 240). Similarly with regard to speed and pauses, unusual word-order employed for reasons of emphasis, the use of metaphorical or otherwise not habitual expressions, and so on. We are differently adjusted to different languages that we may happen to speak, to different keys in performing music, etc. (l. c. 236 sq.).²)

The process of speech is thus always controlled by a subjective attitude on the part of the speaker. It is not necessarily renewed for each sentence, but may remain essentially the same throughout a long speech or conversation.

My conclusion is that the production of speech normally begins with

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¹) For Head, this phase falls outside the scope of his investigation. For Selz, with the more or less artificial setting inseparable from experimental research, there could be no volitional attitude towards the task; the attitude could only be that of complying with the instruction. From the biological point of view, whether phylogenetic or ontogenetic, the adjustment is a very primitive function, originating in the physical reaction of the animal to changes in the environment, pleasant or the reverse (Cf. Rignano 1 sqq.). According to Pick, the *Stellungnahme* corresponds to Marbe's and Messer's *Bewusstseinslage*, or conscious attitude (cf. Clarke, Am. J. of Ps. 22).

²) Cf. Pick, Sprachstör. 229 sqq., Selz II 367, and Fröschels, who points out that a practised speaker inhales a suitable amount of air in his lungs before beginning a sentence. He has thus some notion of what he is going to say. A beginner makes mistakes in this respect, as do some aphatics (Fröschels 91).

an adjustment, comprising determining tendencies arising from the intentional awareness (Zielbewusstsein).[1]

The final phase of the process is normally the completed verbalization of the speech. With regard to what comes between these two phases, no fixed temporal relations can be ascertained. The psychic processes interlace in a way that is probably influenced by the temporary mental state of the speaker and by the nature and difficulty of the task; and since these factors vary from one instance to another, their effect likewise varies.

With regard to the second question propounded above, the words may, according to Selz, arise at any phase of the process (similarly Valkenburg 20), and the same is true of the sentence schemes. It is not even necessary that the schemes should be prior to the words, although they often are, and even prior to the concrete mental content that is to fill them (as in gradual formulation).

The appearance of words at an early stage seems explicable. No doubt the attention of the speaker is directed mainly, as has been stated before, to the referents he is discussing and to the ultimate purpose of his speech. But for this purpose speech is the necessary instrument, and the rapid and effective working of the instrument, that is to say, the rapid finding of suitable words, is a preliminary task that cannot be neglected. Also, our notions are so intimately bound up with words (5.53) as to have become practically inseparable from them, so that very likely, even if not necessarily, any emerging thought will, if sufficiently definite in character, call up a word as an almost simultaneous concomitant.

The most that can be said is that the actual utterance of words in sentence form comes as the last phase of the process. In easy, normal speech, the sentence seems to spring from the impulse to say something, that is to say, from the adjustment to the situation (cf. Pillsbury-Meader 195). The intermediate processes are telescoped into such an infinitesimal space of time that they are unnoticeable. No doubt this is to some degree due to the fact that the sentence schemes employed in everyday life are comparatively simple and few in number, and are habitual enough to be without difficulty apprehended as units.

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[1]) Cf. Ach's definition: Determinierende Tendenzen sind Wirkungen . . . welche eine Beeinflussung des geistigen Geschehens im Sinne der Zielvorstellung nach sich ziehen (Ach 120).

There is, of course, no proof of the assumption that the processes observable in artificially retarded instances remain unchanged in the normal process. They may be merged in more comprehensive acts.

With regard to normal speech, we cannot indicate any definite phase of speech production at which the words arise in mind, and we are thus unable to say anything about the precise psychic situation in which sense-changes may originate.

The results of this investigation into the temporal relations of the processes in speech production may appear somewhat meagre, but they are not without interest.

A sense-change may be said to occur at the moment when the word arises in mind and is connected, as its symbol, with a sufficiently determinate item of mental content, with which it has not previously been connected. Since this may happen at any phase of development, an analysis of sense-change has to reckon with the whole complex of normal speech functions as being, potentially, operative at the moment of change; and, moreover, not only with the context really expressed in the surrounding words, but with any other perceptual or mental context that may happen to exist simultaneously. The polysemy of words connects most of them with many different items of experience, and many different spheres of experience, any of which may act as stimulus for their evocation. All these circumstances, taken together, provide an infinite variation of contexts in which the word may appear, subjected to a variety of influences, by which its meaning is moulded to suit the momentary purposes and environment.

The variations of mental content that we wish to express are infinite, and the limited — even if very large — number of words and habitual meanings is not sufficient to meet the demands we are constantly making for adequate expression. In such situations the extreme variability of the mental processes preceding speech, and the infinite possibility of combinations of words and meanings, provide us with the means of adapting speech to our needs and purposes in each single case: we are able to make the words express mental content that they have never expressed before.

The exploitation of these possibilities of expression is, naturally, wholly dependent on the corresponding adaptability of the process of comprehension: it would be useless if the hearer were not able to follow the speaker's meaning, even when it departs from established habits (see ch. 6, especially 6.33 and 6.36). The lack of fixed temporal relations, and the consequent flexibility of the speech process, is thus of the greatest service to us, both as speakers and as hearers.

5.5. The Relation of Speech to Thought, and the Selection of Words in Speaking.

5.51. *The Relation of Speech to Thought. Discreteness.* I have discussed in the preceding sections the ordering of words in coherent speech and the processes involved therein. One point of view has been left aside: the interrelation of speech and thought. Different languages differ in this respect, but certain general principles can be indicated.

The arguments concerning the definition of meaning have already shown that the mental content of any user of language is by no means completely expressed in the meanings of the words he may pronounce or listen to. There is always a great quantity of context (3.16, 4.16), forming perhaps the larger portion of our total mental content. This fact has, I think, been lost sight of during the controversies concerning an assumed parallelism of thought and speech. (See for instance Funke, Sprachform 66, 99 and Engl. Stud. 57, 164 sqq.).

"Acts of free associative thinking cannot be expressed completely in words; the whole process is inherently illogical, intuitive and punctuated by irrelevancies. As soon as we attempt to express our thoughts even to ourselves, we re-arrange them and drastically prune away redundant and incoherent features. For the purposes of articulated speech or writing this process is carried out still more ruthlessly, and we strive to cast our thoughts into a form that is not only comprehensible to ourselves but to our hearers; the results of unrestricted thinking are refined and ordered in accordance with logical canons." (Head I 513).

Head's statement is somewhat forcibly formulated but is no doubt right in principle. Spearman points out that the items of mental content named by words attain thereby a higher degree of fixity and determinateness, but this result of verbalization "has to be purchased at a heavy price. For it entails, and in its effects is intimately blended with, the further character of *discreteness*. By this is meant that the concepts nowhere cover the field of cognition continuously, but only mark out certain points in it more or less widely separated from each other.

A contrast may be drawn in such respect between conception and perception, taking as an instance the comparatively simple case of visual quality. As regards a percept, on the one hand, this can easily fall anywhere throughout the whole continuum from greatest brightness to greatest darkness, or from extreme red to extreme violet, or from any one size, shape, and duration to any other. Between no two varieties does there exist any inaccessible interval, however microscopic. Quite otherwise, on the other hand, is the range of visual quality as rendered in concepts. So rendered, it is expressed by single words or set phrases that have very large intervals between them. When a person ceases to conceive a colour as "blue", he usually jumps straightway to "green", and thence again to "yellow" (Spearman 264—265).

Similarly in ordinary discourse when expressing compound ideas by means of words. First, all elements and shades of the original thought cannot possibly find expression in speech. Our mind is much richer than language (Müller-Freienfels, Einfluss 397 sqq.). Secondly, the collective meaning is far from being exhausted by the sum of word-meanings. "The passage across from either to the other requires . . . a separate cognitive operation — which can even upon occasion present formidable difficulties. The cognitive field may, then, be compared to an ocean studded with icebergs. Over much the larger portion, including not only sensation, but most thinking also, it is still fluid. Only dotted here and there, has the thought frozen into verbo-conceptual rigidity"(Spearman 276. Cf. Marty, Unt. 145, Feldkeller 287, Pick, Sprachstör. 186 with quots. from other writers, Delacroix 121 sqq.; Cassirer, Phil. I 20 sqq.).

We find similar opinions expressed by Laguna, who also devotes a passage to the question as to what items of cognition are picked out by a language for naming. "Not everything in the world has a name. Even in our modern world, which has been combed over and teased out by the subtleties of civilized language, there remain aspects and nuances which escape fixation in speech; which are not only directly, but even indirectly indescribable" (Laguna 272). Since language is an instrument for the promotion of purposes, and for the co-ordination of group activities, those features especially of the objective world are named "upon which co-operative action *pivots*. Whatever is peculiar to the individual does not need, nor can it receive, specification in language. Moreover, what may be in common to many individuals merely as individuals, because they are alike, cannot be effectively specified by language, except in so far as it excites common interest. I may specify verbally features of my world which are equally features of yours; but unless such verbal response on my part calls out some answering behavior from you, directed to what I have been talking about, there is nothing to mark the success or failure of my speaking. It is only through the *convergence of action* upon the objects of verbal response that language becomes standardized, and its terms freed from ambiguity and vagueness of meaning" (l. c.; cf. Cassirer, Phil. I 253, 255).

Different languages differ greatly in this respect: one language may discriminate dual and plural, another not, and so on; any comparison of two languages will furnish numerous instances (Gomperz II. 1. 59, note 11; Pick, Schw. Arch. 12, 108 sqq.). Objects which are of especial interest to the speaking community tend to receive a plurality of names, each indicating one aspect, or function, or phase of development, or use etc. of the referent. (Cf. Hocart, Br. J. of Ps. V; Jaberg, Arch. 136, criticizing Tappolet, Arch. 131).

In discussing the correspondence of speech to thought, we have thus first to note that only part of the mental content at any moment is expressed by words; what items are selected for naming by a language as a whole, is a point that has already been touched upon. In the next paragraph I shall discuss the question as to what items of content are selected for verbalizing in any individual case of speaking. A third detail of the problem is the correspondence between the verbal forms actually used in speech and the meanings that they express.

I have pointed out above (4.27) that it is a mistake to suppose that a complex expression always denotes a complex referent, or a simple expression, a homogeneous referent. With regard to the relation of word to meaning there are also some discrepancies. Thus, at the moment of formation, a "passive" noun like *committee* is no doubt felt as designating its referent as "the person to whom something is committed", but such a person has also other characteristics; these may, and will in many situations, predominate in the speaker's attention, and the "passive" element, that is to say the apprehension that the referent as one to whom some business is entrusted, may sink into the background. The meaning is "adequated" (see ch. 14), as is shown in this word by the shift of stress. The composite word then expresses a homogeneous meaning. This often happens with derivations and compounds. It does not of course prevent the meaning from being occasionally specialized in such a manner that the original relation is again apprehended (4.265).

We have also perhaps to assume that in the case of words like *point, head, cause, new,* etc. (cf. 4.265) the meaning may be specialized in such a way that a relation is apprehended: the referent is the head *of something,* the cause *of something,* and so on. But does this element belong to the word-meaning, or is it an educed relation, and consequently to be reckoned as context? I think the latter interpretation is more likely.

In the case of flexional forms the endings of which are in current use, an adequation like that just described is not possible, except in a few instances where an inflected form acquires adverbial force and is separated from its stem word.

But with the exception of these clearly defined cases I believe that we have to assume that each word, and each part of a word that is still manipulated as an independent linguistic unit — it will be remembered that I am dealing with the meanings of words, not with the meanings of phrases — corresponds to some item of mental content. If we did not make this assumption I do not see how there could be a science of meanings. And the fact that stems, endings and prefixes, all denote a more or less constant referent, and consequently express a more or less constant meaning, whatever the context, is conclusive proof that correspondence between words and meanings is the general rule, *i. e.*, that each independent word or part of a word expresses a more or less clearly apprehended item of mental content. In normal speech the rapidity of the process leaves no time for attending separately to each item, and automatism enables us to handle complexes as units.

Further, in spite of the discrepancies already touched upon, I think we have to assume that each word generally denotes some detail or characteristic of the total (phrase-) referent. Where a single word denotes a complex referent, the latter is thereby shown to be apprehended as a unit; and where a phrase (as *land without mountains*) denotes a single referent, the complexity lies in the apprehension, not in the referent (4.27).

5.52. *The Selection of Words in Speaking.* In order to communicate a set of facts (*Sachverhalt*), a complex referent, the speaker has to pick out those details of the referent that should be specifically denoted in order to enable him to form by the combination of corresponding words a comprehensible and coherent sentence; secondly, he has to select words that express his subjective apprehension of the referent and are appropriate to his intention.

The mechanism of the former of these operations seems to be very little known. It is, obviously, largely guided by the available stock of words and sentence schemes, and without the highly automatized employment of these tools it would be practically impossible. The words provide us with a set of ready-made counters, corresponding each to some element of reality, as apprehended through some element of content, and the sentence schemes help us to arrange the words in proper order. Our faculty of observing, apprehending, and thinking has developed hand in hand with our knowledge of speech, and runs in traditional channels determined by the means of expression furnished by our language. The importance of this fact for the perfect functioning of the speech apparatus comes out especially when we are trying to use a foreign language with which we are imperfectly acquainted. We automatically arrange our mental content in the order appropriate to our mother tongue, but we are constantly finding that this will not do; the other language demands a different formulation of thought, and we must laboriously learn how to do it.

We have to assume, then, that the obtrusiveness of certain details in the total referent, and their importance for the speaker's purpose (see Selz II 354), collaborates with the linguistic material (words and schemes) arising in the speaker's mind, and determines what items of the total referent shall be denoted by words.

With regard to the second problem, the speaker's selection of words that express his subjective apprehension of the referent and are appropriate to his intention, we are at least somewhat better informed. The psychic mechanism underlying it is, according to Selz (II 378 sqq.), an instance of "determinierte Komplexergänzung" more precisely "eine determinierte Benennungsreproduktion", or, in Spearman's terminology, an eduction of correlates (see note to 4.265). The connection between meaning and word functions as a relation (Selz: *Bedeutungsbeziehung*), the meaning is the initial fundament, and the finding of the word is thus a case of regular correlate eduction. An explanation in terms of associative psychology does not, says Selz, give a satisfactory result, and does not show precisely why the *name* of the referent is educed, and not any other word that may be associated with it (l. c. 380).

The important point for the present study is the process of selecting those names of referents that are appropriate to the speaker's intention. I have assumed the adjustment to be the initial phase of all speech, involving the purpose of the utterance; from the awareness of purpose spring the determining tendencies that guide the selection of words, consciously or unconsciously, and inhibit the use of unsuitable words.

With regard to the factors influencing the selection of words, in addition to, or merging with, the influence of the determining tendencies, there are several details to be noted. (See for the following Delacroix 411 sqq.). There is first the available supply of words and sentence schemes. Habit may call to our lips in certain situations, or indeed in a great variety of situations, one stereotyped formula or exclamation: a frequent occurrence. (Such a formula is sometimes only a signal for emotion, cf. 5.21). Mostly, however, we handle our material more freely. "Nous employons un mot à un moment donné pour les mêmes raisons que nous évoquons une idée; usage fréquent, usage récent, exigence affective, exigence logique, intérêt momentané, influence de la phrase que nous sommes en train de faire et des mots que nous sommes en train d'employer" (Delacroix 413). The emotional tone characterizing our adjustment makes us select words carrying a similar emotive tone, or at least not opposed to it. The consideration of the listener or reader imposes further restraints on a speaker, by the necessity of being understood, or the desire to be effective. "Une bonne partie de notre phraséologie spontanée s'adoucit et s'arrondit au contact de l'interlocuteur. Nous avons différentes façons de parler selon les milieux. Nous refoulons, en présence d'autrui, une partie de notre vocabulaire. Les nécessités de la communication et de l'expression pèsent sur tout langage" (l. c.). We choose different words when speaking to adults and to children, to educated and to uneducated persons, and so on.

A very important point with regard to the completeness of expression necessary for an adequate communication is the presence of context, external or internal (cf. 6.32), supplying information about the referents. A full context has the same consequences as previous knowledge — or the latter may be regarded as context; it renders a complete *verbal* expression unnecessary; incomplete, allusive phrases are typical of the conversation between intimates who are familiar with each other and with each other's affairs and points of view, and of utterances concerning the situation perceptually present to the interlocutors. A hint may then suffice, where otherwise a detailed exposition might have been necessary. This is the special field of contingent meanings. Words, gestures (symbols and signals), and the perception of the situation, perhaps also of the speaker's actions, collaborate to demonstrate his meaning to the hearer. The proportion of words may, on occasion, sink to a minimum without giving us the right to regard the expressions actually used as defective: they duly fulfil their part in the communication and are perfectly adequate to it; consequently the expression is functionally complete. It is only when we turn the matter round and apply the syntactical yard-stick that a phrase without subject or predicate may be termed defective. Much controversy has been caused by failure to distinguish these two points of view (cf. 6.3 and 6.4; Cassirer, Phil. I 44; and ch. 10 below).

5.53. *The Reaction of Words on Thought.* Speech is, according to the view that I have adopted, an instrument for the promotion of purposes, and a speaker employs the instrument in the way best calculated to serve his ends. But, like other instruments, speech is not entirely plastic: it has certain characteristics of its own which react on the thoughts it is used to express. These characteristics are due to the fact that speech is an actualization of a language system, the normative function of which has been mentioned above (2.11, 3.25).

Verbalization has, as I have already pointed out, the effect of making the thought more vivid and definite: "our idea approximates to the fixity and independence of a percept" (Ward 296). According to Burkamp, it is questionable "ob eine begriffliche *Einheit* überhaupt ohne ein Zeichen zu setzen und zu behalten ist, wenn dies auch vielleicht nicht immer ein Wort zu sein braucht" (Burkamp 223. Cf. Humboldt § 8, Wundt II 251 and 511, Messer, Empf. 108, Binet 106—108, Pick, J. de Ps. 1923, 891; Cassirer, Phil. I 22 sqq, 42 sqq.). Not seldom the word is the most substantial part of the mental content, and it is through the word that the fugitive operations of thought receive sufficient impressiveness and power of perseveration to survive the moment and to be reproduced (cf. Feldkeller 288, Spearman 264, and Wundt's analysis of the meaning complex; also 3.21, 14.12).

The child, in learning language, is provided with an instrument which helps him also to distinguish particular features in the reality surrounding him. And not only cognitively: "the current vocabulary of every generation and community has its set of stock epithets and descriptive phrases with which persons and things, acts and incidents, come to be branded and their public status established. It is thus in large measure that the feelings and sentiments of the community are directed and canalized, that prejudices are fostered, and conventions maintained. In acquiring the vocabulary of his day, each adolescent youth is being fitted with a set of variously colored spectacles, through which he is to look at the world about him, and with whose tinge it must inevitably be colored. It is peopled with "reds" and "reactionaries", "flappers" and "lounge-lizards", "live-wires" and "morons". It is a world in which "pep" and "efficiency" and "personality" are desirable and in which "inferiority complexes" are to be dreaded" (Laguna 288—289; Stout II 196, 202; Cassirer Phil. III 238 sqq.; Stern, Psych. 111; Paulhan, Revue Phil. 104, 23 sqq., 33 sqq.).

Although, as stated in the previous paragraph, normally only words that are compatible with the determining tendencies are evoked in any individual act of speaking, it is not always certain that the word used is in every way completely adequate. And since words have a definite sphere of use, a definite semantic range, and not seldom also a definite stylistic and emotional tone (the result of preponderant use in connection with certain referents or in certain contexts), associations not intended by the speaker may accompany the words and colour his thoughts in an unexpected manner, or even turn them into new channels (Spearman 124). The hearer, too, may gain an erroneous view of what the speaker wishes to convey (cf. 6.5). This is perhaps especially the case where the formulation is more or less automatic, where the phrase seems to spring immediately from the impulse to say something, and the speaker does not give himself time to think it over before speaking. He contents himself with a feeling of direction, an adjustment to a certain purpose. The automatic process may then bring up a formula not intended. And if the formula is what the speaker desires, it may be news to him, too; we sometimes learn our thought by hearing ourselves express it.

In this connection I may mention ''the censoring of language'' (Pillsbury-Meader 196 sqq.). Occasionally a word that is evoked will in its turn call up associates which are unsuitable to the context and the speaker's purpose. The speaker may notice it before he utters the word, or perhaps only after speaking. ''The second possible setting suddenly presents itself just after the phrase has been used, and the associations that result are seen to be not at all in harmony with the intention that is controlling the expression as a whole'' (l. c. 197). One may also become aware of a formal deficiency in the spoken sentence. Mostly, the judgement passed on the words is of a quite general nature: they please or displease, they are felt as being suitable or unsuitable to the situation or the auditors or the purpose. Totally unsuitable names for the referents are usually altogether inhibited as incompatible with the determining tendencies (Selz II 600).

CHAPTER VI

THE COMPREHENSION OF SPEECH

6.1. Visual and Auditory Perception of Words. Before discussing the comprehension of speech it will be useful to say something on the perception of words, visual and auditory.

Experimental research has shown that if letters are combined to form familiar words we are able to apprehend during an equal space of time a much larger number of letters than if they are arranged without order. This does not mean that we really perceive more letters in the former case: we do not recognize the individual letters but the characteristic pattern or configuration (*Gestalt*) of the word as a whole, comprising the most elementary configurational qualities, as length, angularity, etc. This is the first phase; the second begins with the apprehension of some characteristic detail. This detail may give rise to mistakes, if another configuration, into which the same detail enters, takes the place of the correct configuration in the subject's mind. The apprehension of additional details limits the number of complexes capable of satisfying the requirements until finally only one remains (Korte 81; cf. Erdmann & Dodge, Zeitler and Wiegand, quoted by Selz I 122 sqq.; Selz II 457, 491, Spearman 252, Pillsbury-Meader 133).

In the case of coherent phrases the analysis and apprehension of the words is facilitated by the context (cf. 6.3). The number of complexes that fit into the scheme of the whole is much reduced, and in most cases it is limited to one possibility long before all the individual letters are recognized (Korte l. c.). This explains the passing over of misprints. It is well known that careful proof-reading is a much slower process than "reading for sense" (Pillsbury-Meader 129 sqq., 138).

Similarly the auditory perception of words is much facilitated if the pattern of the words is familiar. A previous knowledge of the topic, familiarity with the speaker's point of view, and inferences from the already apprehended portion of an utterance help a listener to educe what he does not clearly perceive, to understand more rapidly and certainly the words he is just hearing, and to educe in advance what will be said in the next few words. When listening to a speaker at a distance or on the telephone, unfamiliar proper names and numbers are much more difficult to catch than other words, because we have in the former case no assistance from the context (Bühler, Ber. 103, Paul, Prinz. 78 sqq., Gutzmann 8, Stout II 128).[1]

Neither in hearing nor in reading do we carefully note each ending and particle. We note the main points of the sentence, having often no need to be guided by the speaker (writer) in reconstructing the relations between items; these are easily educed (Selz II 354). In telegraphic style, the words for many relations are intentionally dropped without impairing the intelligibility of the text. Bagley has shown that in ordinary discourse the supplementation is fullest and most correct towards the end of a sentence, less so in the middle, and least at the beginning (Bühler, Ber. 103. See also Moore, Mono. 79).

The psychological reasons for this reliance on eduction and supplementation where careful reading or listening would provide the data, are to be sought in the greater rapidity of the eductive process, and the general purposiveness (*Zielstrebigkeit*) of the speech processes. The listener all the time is directed towards the rapid apprehension of the referents and of the speaker's intentions, for which the words are a means that he strives to pass over as quickly as possible. To notice all verbal details would take too much energy and time, which are required for the referents (cf. 6.3).

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[1] Selz (I 168 note) calls attention to the circumstance that our comprehension of words is undisturbed by individual variations in pronunciation, although these may be considerable. "Nicht individuelle akustische Wortbilder, sondern ein bestimmtes akustisches Schema, dessen Eigenart auch bei Verschiedenheit der individuellen Sprechweise erhalten bleibt, haben wir uns mit den entsprechenden Bedeutungserlebnissen verknüpft zu denken. Die Bedeutungserlebnisse sind also nicht individuellen Wortbildern, sondern diesen individuellen Wortbildern gemeinsamen Komplexbestimmtheiten reproduktiv zugeordnet" (Cf. Bühler, Ber. 94—95). This view explains why some variations in pronunciation do not disturb comprehension, while variations in other directions, may do so. The law that reproduction follows not only after repetition of identical items, but also after the occurrence of those that are only more or less similar to the original experience, is not an adequate explanation, since it does not explain why modifications in one direction have no effect on comprehension, while modifications in another direction may seriously disturb it. It would be interesting to investigate the why and wherefore of these facts, and attempt to ascertain *what* modifications lead to the word being regarded as no longer the same, and what modifications are felt as lying within the latitude permitted to the word without losing its identity.

6.2. The Comprehension of Isolated Words.

6.21. *The Act of Understanding in General.* I have quoted above (2.21) Ogden and Richards as stating that "a symbol becomes when uttered... a sign to a hearer of an act of reference. But this act, except where difficulty in understanding occurs, is of little interest in itself, and the symbol is usually taken as a sign of what it stands for, namely that to which the reference which it symbolises refers".

To understand a sign, then, is to make an act of reference, similar in relevant respects to that made by the speaker; or, in other words, to realize what the sign stands for.

This definition applies to signals (2.22). For symbols it must be qualified. Words as symbols have peculiar properties, and represent their referents in a peculiar manner. To understand a word it is not enough to make the correct reference, it is also necessary to understand the referent. It might be argued that if somebody shows us an object that we have never seen before, and the nature and utility of which are entirely unknown to us, and further tells us that this object is a *gazun*, then we understand the word, since we make the correct reference. But in connection with speech the term "understand" is generally not taken in this wider sense. To understand language is to understand by means of language, and involves understanding the thing symbolized in addition to the symbol (Delacroix 441). It is of course an indispensable condition for comprehension that the word be conceived as referring to an apprehended referent (Fischer 43, 44. Cf. Gomperz, Sinn 11, 47 sqq.).

We are here interested primarily in the comprehension of speech, that is, of actual meanings. However, isolated words are a more easily handled material for experiments, and it will be useful to begin with a summary of some results obtained with regard to them. On earlier experiments, see Bühler, Ber. 107 sqq.; also 4.22 above on the nature of isolated meaning.

6.22. *Experimental Evidence.* A useful and clear account of experiments on the understanding of isolated words is given by A. Hermann-Cziner (Zs. f. Psych. 92). She instructed her observers to read the word shown to them, to reflect on it from the point of view of "what is that?"

and to report their experiences as soon as they had arrived at a result. The observers were thus to study not only the first apprehension of meaning, but also the subsequent events and their relation to the first experience, their value for understanding, and so forth.

Before understanding proper, there sometimes appeared a feeling of familiarity or strangeness, as well as an observation of the form of the stimulus word (cf. R. M. Ogden 227—228). In normal use the feeling of familiarity is merged in the meaning of the word and does not obtrude itself, except where understanding fails to follow, that is to say, when we recognize the word but do not remember its meaning — an unpleasant experience in some situations! See on this point also Messer, Arch. 8, 85 sqq., Husserl II. 1. 73—74; Bühler, Bericht 109 about Bekanntheitscharakter; Selz (II 455) explains the feeling of familiarity as "Erlebnis einer Gleichheitsbeziehung zwischen den wahrgenommenen Komplexen und bestimmten geläufigen allgemeinen Komplexcharakteren (von Worten, Buchstaben oder Buchstabengruppen)"; Fischer (43, 42) states that the *Bekanntheitsqualität* comes before understanding and is not a consequence of it, and that if it does not appear the word is regarded as *Sinn- und Bedeutungslos;* Freudenthal 27, Moore, Mono. 101.

With regard to understanding proper, three distinct variants appeared in Hermann-Cziner's reports.

I. "Pure" understanding. In this case the words are understood as they are read, without any definable experience whatever.¹) This awareness of meaning is described as an undifferentiated unit; the observer is not conscious of having apprehended the meaning; it is present to him in the word, and he is not conscious of a duality between word and meaning. In the experience the word does not refer to the referent, but it *is* the referent, it is not apprehended as a name but as the referent itself.

II. Mediated Understanding (das repräsentierte Verstehen). In this type the meaning is represented by some mental event. The re-

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¹) *Wasser:* Ich verstand es ganz leer, ohne dass ich dabei etwas gedacht hätte. — *Wahrheit:* Nach dem Lesen war wieder ein Zustand des Verstehens vorhanden, welcher eigentlich die Einheit von drei Dingen in sich enthält: des Wortes, des Ich und der Bedeutung; es besteht gar keine Trennung. — *Pflanze:* Im ersten Zustande war gar nichts davon zu fühlen, dass sich dies auf mehrere Dinge bezieht: es erschien, als ob ihm eben nur *ein* Ding entsprechen würde (l. c. 92).

presentation may be imageless, and either a feeling¹) or a motor innervation.²) In other cases the meaning was represented by imagery, in which visual images predominated. Concrete nouns were represented by a picture more or less complete, but nearly always general. The generality is a generality of intention: only in exceptional cases is the image referred to individual objects.³)

The visual representation of abstract nouns and other grammatical categories is either an illustration of an instance⁴) or an image of some object that stands in exterior or intrinsic relation to the referent.⁵) Fairly frequent are images which do not refer to existing objects, but present a symbolic representation of the referent⁶) (Cf. 4.14).

A successive presentation of images representing objects falling within the range of the word occurred only twice in all the experiments, although it ought to be very common according to the associationist doctrine.

Mediated understanding, like pure understanding, is one undifferentiated experience, in which referent and its representation fuse. The representation does not exist beside the apprehended and comprehended referent, but is from the beginning "objectified". The image

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¹) *Prinzip:* Ich fühlte etwas Starkes, Unentwegtes, und wusste nichts weiter herauszubringen. — *Sogar:* Hier ist nur etwas Gefühlsmässiges gegeben: ein Ausruf, ein selbständiges Gefühl . . . Es bedeutete ein Crescendo (l. c. 93).

²) *Prinzip:* Das erste illustrative, sich nicht in Worten abspielende Erlebnis war die Innervation einer Handbewegung. Es war etwas Hartes, Festes in der Stimmung des Wortes und in der damit einhergehenden Innervation. — *Individualität:* Da verspürte ich zuerst etwas motorisches. Ich hätte am liebsten eine abschliessende Bewegung gemacht, fühlte sozusagen den Anhub dazu. Das geschieht gleichzeitig mit dem inneren Verstehen des Wortes (l. c. 94).

³) *Lampe:* Das erste war über einem Tisch das Bild einer Hängelampe, welche ein dunkles Zimmer beleuchtet. Ein sehr bestimmtes Bild, obzwar es nicht lokalisiert war. — *Wagen:* Hier tauchte auch sogleich ein Bild auf, ein verschwommenes Gemisch von Wagen und Karren, kein deutliches Bild (l. c. 95).

⁴) *Verwegenheit:* Es erschien ein Bild: jemand springt von einer Brücke herunter (l. c. 95).

⁵) *Instinkt:* Erst dachte ich an ein Tier, sah anschaulich sein Rückenmark, als Ort des Instinktes (l. c.).

⁶) *Gedanke:* Als ob ich innwendig etwas sehen würde, etwas teilweise Visuelles: ein Sich-öffnen, ein Sich-entfalten . . . *Sehnsucht:* Erst kommt ein Bild: die Ausweitung von etwas, als ob sich etwas von einem Punkte zum anderen ziehen würde, eine Leere ausfüllend. Jeder "Sehnsucht" entspricht ein so gedehntes, zusammenhängend lineares Etwas (l. c. Cf. Fischer, Arch. 43, 52).

is the referent itself. This is true also of the emotional representation. The importance of the representative content for the comprehension of meaning is not contingent on the adequacy of the imaginal elements. This is shown by the fact that the representation is not more common or more important for concrete words, and that the emotional and symbolic elements are very important. On the whole, Hermann-Cziner thinks that the representative images may best be characterized as symbolic.

III. Explicative Understanding. In this type the meaning of the stimulus word is apprehended through other meanings, or through its relation to other meanings. The meaning of the stimulus word may be analysed (a characteristic of the referent, or some individual instance of it, may be evoked), or related to other meanings (identified with other meanings, apprehended as belonging to a superior notion, or to some objective sphere, compared with subordinated, or co-ordinated, or otherwise related meanings), or it may be defined.

This determination through other meanings may fuse with the understanding of the word, so that its meaning is apprehended from the beginning as thus determined or as thus related to certain relevant meanings. This type was comparatively rare. Hermann-Cziner emphasizes that it is a unitary experience, just as much as "pure" understanding. Its complexity is apparent only, and conditioned by the linguistic formulation: in the actual experience the determinants are not added to a separately apprehended meaning, but the apprehension of the meaning takes place in and through the determination.

In other cases, more numerous, the explicative determinants connect with the already comprehended meaning, either repeating the apprehension of the meaning in a new form, or adding relations and characteristics in the shape of awarenesses and constatations. This awareness or constatation seems to be an item of what I have called context (cf. Husserl's Bedeutungserfüllende Akte, II. 1. 38).

It is further evident from the reports that "pure" understanding and mediated understanding are frequently followed by explicative understanding, and in these cases the latter is apprehended as something additional. The first phase of understanding is apprehended as something concluded, to which accrues an awareness of relations, etc., so that for the unitary apprehension of meaning is substituted a phase of reflexion concerning the referent. The addition is conditioned by the observer's feeling that by contenting himself with the first phase he has not completely obeyed the instruction. The observers agree in ascribing practically no importance for the process of understanding to this additional content.[1] This is partly due to the fact that we have to do with isolated words, which are not vitally connected with any interesting actuality or sphere of knowledge; they have no interpretative value with regard to a speaker.

The explicative processes are found to occur especially when the stimulus word stands in an apprehended relation to the observer's sphere of occupation or interest, or when the word has been used in a subsidiary test series in connection with formulation of judgements, etc.; in short, when the word is brought into some context. The comprehension is then not directed to the isolated meaning of the word, but the latter is apprehended in the aspect determined by the context. It is therefore probable that the explicative type is more common in ordinary discourse than in these experiments.[2]

Hermann-Cziner thinks that her results show the insuffiency of the associationist theories, according to which comprehension is based on the reproduction or on reproductive tendencies of complexes of mental content, connected with the meaning (this only fits signals, see 6.21). In this respect her conclusions agree with the results of research concerning the production of speech, as shown in the preceding chapter. Word and meaning fuse (cf. 3.21) in a peculiar manner, and this circumstance will naturally lead to word and meaning being apprehended in one act, as psychically the same entity.

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[1] *Fass:* Blitzschnell fasste ich das Wort auf; — dann sah ich ein Fass und fühlte mich so rund . . . Was dann folgte, war nicht mehr interessant, bewusst fiel mir allerlei ein . . . — *Gewohnheit:* . . . Ich denke nach, wie sich die Gewohnheiten entwickeln, Intelligenz und Gewohnheit fällt mir ein . . . Aber das Wissen, das ich beim Erblicken des Wortes gewann, veränderte sich dadurch überhaupt nicht (l. c. 104).

[2] See on these points Selz I 3 sqq., especially 83 sqq. Selz gave his observers tests consisting in the eduction of correlates (for instance, find a co-ordinated notion to *fishing*. Reaction: *hunting*). He found that in the case of familiar notions, the solution appeared in the form of "unmittelbare Wissensaktualisierung"; in the case of less familiar notions in the form of "sukzessive Wissensaktualisierung", that is to say, the solution is found with the help of more familiar notions which refer to the same topic (l. c. 45, 66). Although there is a difference with regard to the *Aufgabe,* there is thus a certain similarity in the results arrived at by Selz and Hermann-Cziner: in both kinds of tests the response may appear as if automatically, or it may be mediated by other items of mental content (cf. Selz II 285 sqq.).

It further appears that the meaning-experience is not built up from imaginal elements. Mediated understanding is not the only type, and not the most frequent one, and the importance of images does not lie in their content, but in their function as symbols. This, too, agrees with what has been previously stated (4.142).

Moore (Mono. 101 sqq.) gives the following summary of the processes involved in the understanding of isolated words.

(1) A feeling of familiarity or strangeness. (2) An awareness of the possible applications of the words. (3) An awareness of purpose, arising when the observers were instructed to report as soon as they had comprehended the meaning of the word with regard to the functions of its referent. (4) Images, mostly visual.

Fischer (Arch. 43, 63) gives a similar table: (1) Akustische Wahrnehmung des Lautgebildes und Gerichtetsein auf den Wahrnehmungsgegenstand. (2) Bekanntheitsqualität. (3) Richtungsbewusstsein oder Intentionserlebnis auf Bedeutungssphäre oder Wissen. (4) Darauf oder gleichzeitig Wissen oder Sphärenbewusstsein. Eigentlicher Verständnisprozess damit abgeschlossen. (5) Vorstellungen können als Illustrationen hinzutreten.

Moore's second item probably corresponds more or less to the *Sphärenbewusstsein*, an awareness of the sphere or direction in which the referent is to be sought. Selz (II 117) states that the first reaction to the stimulus word is often a very abstract general awareness of the genus to which the referent belongs. This characteristic is very general and has the highest degree of readiness, and so is the most easily and swiftly evoked (l. c. 163, 285; similarly Messer). Fischer especially emphasizes this item. We are able to understand by being aware that the referent belongs to a certain group, even if we do not explicitly relate it to other objects belonging to the same group. "Erfassung ist Einordnung" (Fischer, Arch. 42, 362, and 43, 46).

Moore's third item, the awareness of purpose, is evidently evoked by the task set to the observers, which led them to think of some object or objects denoted by the word, and their use. But when such a task is set, the word is no longer isolated in the strict sense in which I have taken the term. It has been provided with a context, a determining tendency, which gives the train of thought a definite direction, and thus, in some measure at least, also provides the word with a definite referent, a specialized meaning. With regard to completely isolated words, I do not think that an awareness of purpose enters into their meaning, except as a possible item among other indefinite items that may present themselves to the mind in speculating upon the possible meanings of the word (if sufficient time is given to observers for such speculation). Images seem to be common with isolated words, provided time is given for them to develop. Possibly the absence of a definite referent, and thus of some point of support for the meaning and the word, leads to an attempt to find a substitute in the shape of imagery.

Other psychologists, as R. H. Wheeler and Tolman, have given their observers still more time than Moore did to develop all sorts of concomitant phenomena, which, from my point of view, do not belong to meaning. E. Jacobson states that among the concomitant phenomena some were felt to carry meaning, others not. "The meaning-associates proceed from the instruction given, while the not-meaning-associates are external to the instruction; the former indicate the activity of a particular determining tendency; the latter indicate the activity of reproductive tendencies not connected with this determination" (E. Jacobson 564 sqq., with further comments on this point, and R. M. Ogden). In actual speech there is of course never much opportunity for pondering on possible associates and correlates, and if they arise they are felt to be irrelevant and disturbing. Determining tendencies, on the other hand, play a very important part.

6.23. *Conclusions.* Moore remarks that "the consciousness of what an object is does not necessarily tell us what the object is in terms of use or analysis into parts, etc. All detailed information may be suppressed, but even then this knowing is both an actual and a potential something. It is potential in as much as one may realise that this simple apprehension is capable of analysis — that one needs but to split up its apparent unity and simplicity and he will become conscious of his entire stock of information concerning the object. Nevertheless it is not entirely a potential something. Even in its simplest and most unanalysed form the consciousness that one has in the presence of an apple would not do for an orange or anything else except the apple itself" (Moore, Mono. 77).

Moore, as well as other experimenters, gave their observers instructions which provided a setting or context with which the meaning was put into relation. The most common of the mental categories to which observers assimilated the meaning of the stimulus word were found to be (1) for what is it good? (2) of what is it made? Both these categories, utility and composition, are very primitive (Moore, l. c. Cf. Ach's remark, Begr. 25, that *Zweckdefinitionen* are common at the age of six or seven; later the genus proximum, an instance, etc. are employed. See also Selz II 289, employing similar methods).

Hermann-Cziner seems to utilize the term understand as indicating merely the potential awareness mentioned by Moore, distinguishing any further processes as context. Different opinions on the process of understanding may be due to different interpretations of the term and its extension.

We may, I think, accept the results of Hermann-Cziner's experiments as in the main correct, since they agree with what we may expect on the basis of other data. That the word may seem *to be* its referent, agrees with the observations on the peculiar fusion of word and meaning reported above (3.21). It is reasonable to assume that in familiar words significans and significatum should be practically identified. It is further reasonable to assume that images may mediate the comprehension of words (cf. above 4.14).

The third type, explicative understanding, is the one that has been especially noticed by earlier investigators. Delacroix states that understanding is a two-fold act. "The elementary representations which we arrange by correlating them to each other are already "placed" by their relations to other representations which permit us to understand them; when I understand that the runner is hurrying towards his goal, I know already what a runner is; when I understand that the painter is preparing his palette before setting to work, I know already what colour is. When I understand a phrase I know already the words, the new arrangement of which gives rise to a new meaning" (Delacroix 438). That which "we know already" is clearly the meaning of individual words, and Delacroix thus assumes them to be defined by their relations. (Cf. 6.35 and 6.36).

Cf. Bühler's distinction between *direktes und indirektes Meinen:* "I mean this", compared with, "I mean that which complies with such and such conditions". (Bühler, Arch. 9, 359, also quoted by Fischer, Arch. 43, 44). Fischer thinks that the latter is the rule in the case of a first experience, the former in the case of repeated experiences, when the relations remain only in the form of dispositions.

The meaning of an isolated word always remains vague in the sense that it lacks a definite objective reference, as well as a setting of actual reality. The comprehension remains at the stage of an awareness of possible applications of the word, one of which may predominate, or of the general concept which the word denotes (4.22).

6.3. The Comprehension of Speech (Ordinary Discourse).

6.31. *Preliminary.* The main difference between isolated words and words in speech, is that the former lack vital connection with actualities, not expressing the purpose of a speaker, and having no definite objective reference (cf. 4.22). In speech, the reference of each single word is mostly one among several possible ones, that is to say, the words have mostly specialized meaning. We shall have to show how it is possible for the hearer to select the meaning really intended by the speaker.

We shall further have to discuss the interrelation of word-meanings and phrase-meanings. As will be evident from the following pages, it is impossible to separate these two in the analysis. Words do not occur in living speech except as elements of sentences, or as one-word sentences. The constructing of phrase-meanings on the basis of word-meanings and other data will have to be analysed.

6.32. *Context: Verbal, Perceptual, and Mental.* The listener has to infer from the speech he is hearing both what referents are intended, and what meaning is intended, that is to say, how the referents are to be apprehended. Since meaning comprises the objective reference, it is not necessary to distinguish the two phases of the process. We therefore ask only, what guides has the hearer to assist him in interpreting the meaning of the words as it is intended?

The answer may be given in one word: *context.* Context includes the immediate verbal context together with the non-verbal means of expression spoken of above (2.22 and 4.152), external (perceptual) context (the situation), and what mental context the hearer is able to supply from his own knowledge, experience and observation. The elements belonging to context may refer either to the topic, or to the speaker and his attitude to the topic and to the hearer.

We have to adduce first the general psychological law that if a stimulus is connected with several reproductive tendencies, that tendency is generally realized which is previously more or less actual in mind. A preceding "preparation" gives to this tendency an enormous preponderance, while the other, unprepared, tendencies do not attract attention (they are "detracted", Poppelreuter 307—310). This is especially the case when several tendencies are convergent, that is to say, directed towards the same end (l. c. 312. Cf. on the whole problem also Selz I 222 sqq.)

Words may be regarded as stimuli for the reproduction of meanings. Each word is connected with a number of specialized meanings; one of these is relevant to the general topic of speech, and therefore in a state of potential readiness or preparation. The particular stimulus (the word) and the general stimulus (the topic) converge towards that one specialized meaning, which is therefore evoked in preference to any other.

With regard first to the *verbal context* (the immediate verbal context, as distinguished from the wider verbal or textual context: statements in previous sentences, chapters, etc., which I reckon as mental context), the words in a sentence provide determining elements for each other. The addition of attribute, verb, adverb, and so on, to the subject-noun, will greatly limit the number of referents that might possibly be denoted by the noun, cutting off, as it were, successively further portions of the referential range as not relevant; the noun likewise determines the precise meaning of the other words. Only meanings which suit all the words in a sentence can be intended by the speaker, since the sentence is to express a logically coherent thought.

In an analytic language the influence exerted by the words on each other is largely dependent on the order in which they are arranged. If we mix the words in a sentence and read them in an arbitrary order, the resulting experience will be quite different (Poppelreuter 328).

The influence of verbal context has been experimentally demonstrated. If the German word *Bank* is offered to a number of persons, they will report varying experiences. But if they are given the pairs *Geld — Bank*, *Park — Bank*, *Gerichtssaal — Bank*, the first word restricts the associations evoked by the second word to a definite sphere. Only those elements that are already "prepared" by the first word tend to be reproduced.

If the second word is unknown, it will be tentatively interpreted as belonging to the sphere actualized by the first word. *Krankenhaus-Keratitis:* "at first meaningless, then assumed to be a disease; sound-ed medical". *Afrika-Misitis:* the second word was apprehended as the name of some place in Africa; other African names were reproduced. A new notion is thus assumed to belong to an already actualized sphere. If the meaningless word is placed first, it receives its meaning from the familiar word following it (cf. Selz I 222 sqq. on similar experiments of of varying kinds).

When an unknown word occurs in a sentence it is comprehended "en fonction du schéma d'ensemble" (Delacroix 445). The familiar words denote each their portion of the total referent, and the syntactical relations between them and the unknown word correspond to the actual relations between their referents, The referent of the unknown word may therefore be inferred through an eduction of correlates.

The mutual limitations exercised by the word meanings in a phrase may be sufficient to make the total meaning perfectly definite, and to reduce the number of possible phrase referents to one: that is the case with statements concerning unique objects, as *the diameter of the earth is n miles, the Nelson Column stands in Trafalgar Square.* Nouns used in a general sense belong to this type: *cows are larger than dogs, the rapidity of light is greater than that of sound.* Nevertheless, I regard such phrases as isolated, as long as they are not the expressions of a speaker's apprehension of the referent; in other words, as long as they are not judgements, but merely propositions (cf. 4.22).

The non-verbal means of expression (2.22, 4.152) may give the hearer additional information concerning the speaker's attitude towards the topic or towards the hearer himself. Gestures, or the direction of the speaker's glances, may indicate what is being referred to. In print, such signs may be replaced by explicit information on relevant points. These signs form a transition between verbal context and perceptual context.

Perceptual context is often indispensable to the hearer as a complementary determinant of meaning (thus in contingent meanings). That is the case with most one-word sentences, for instance as used by children. For a child "a substantive does not denote simply an object, but all the actions with which it is in relation in the experience of the child" (quoted from Bloch, J. de Ps. 18, 710; cf. Jespersen, Language 133). "A child's word does not . . . designate an object *or* a property *or* an act; rather it signifies loosely and vaguely the object together with its interesting properties and the acts with which it is commonly associated in the life of the child. The emphasis may be now on one, now on another, of these aspects, according to the exigencies of the occasion on which it is used. Just because the terms of the child's language are in themselves so indefinite, it is left to the particular setting and context to determine the specific meaning for each occasion. In order to understand what the baby is saying, you must see what the baby is doing" (Laguna 90—91). Bloch reports that two of his children used *pa te* (par terre) to call attention to an object lying on the floor, as well as to announce that the child had thrown it there. One child also used *pa te* as a request to be put on the floor himself (Laguna 89).

Dependence on perceptual context may be of all degrees. Pick (Sprachstör. 155) quotes Bergson (Matière et Mémoire 133) to the effect that normally the inferences from context surpass what is understood from words. Discussion concerning objects around us usually requires perception of the objects in order to be correctly interpreted. *There flies a bird* is a phrase which we understand, in one way, in any circumstances, but it is only when we can refer it to a definite set of facts that its precise meaning is understood, and the possibilities of interpretation reduced to one (cf. 4.25 on contingent meanings).[1])

There is finally the *mental context* that the hearer himself is able to supply, from his previous knowledge of the topic and his experience of the speaker and of the topic, whether this knowledge is of long standing or is gathered from statements made in preceding sentences, chapters, etc. In the case of scientific statements, as in the present work, this context is always indispensable. "The most impersonal and abstract of disquisitions is written with a whole background of unexpressed "representations", and in a situation of *presumptions*. If this presumed background is not shared by the reader, what is written must remain relatively unintelligible to him" (Laguna 109).

Similarly in most narrative texts. We may take a sentence like the following: "With his rifle on his shoulder he went off towards the forest". If this sentence, occurring in a book, is purely descriptive, it has not much meaning over and above that borne by the single words. But it is nevertheless not fully comprehensible by itself. We do not know who *he* is, what the *forest* is, the time and circumstances of *going*

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[1]) See in this connection Bühler's interesting exposition of "Steuerung"(Bühler, Krise 39 sqq.).

off, and so on — a number of things which we should have to be informed of for complete understanding and which we normally gather from the wider textual context. But let us assume that *he* is going off into the forest to encounter a dangerous enemy, or is about to start on some other risky adventure from which his friends are attempting to dissuade him. We have a tense emotional situation, the solution of which may very well be given in the phrase quoted. Its import is then completely changed. It is no longer merely a case of fitting a simple action into a series of events. We have to grasp the effect of a fatal decision on an involved situation, a decision perhaps led up to by a long series of acts, and in its turn releasing another chain of events. Thus a changed context may completely change the import of a statement. "The meaning of a word is determined by its total setting rather than by the word itself and its immediate setting" (Pillsbury-Meader 141; Cassirer, Phil. I 103, quoting Humboldt).

Elements of the wider context may be supplied to a reader after the sentence that is to be interpreted, so that it is understood only in the light of what is read on the next page or in a subsequent chapter (l. c. 141; 6.37). Elements of mental context that are sometimes very important for the fulness and vividness of apprehension, are those elements of content that I have described in 4.16, the awareness of sphere or direction, and everything in the way of associations that may be called up in mind by the referent and the word, stylistic associations connected with the word, and so forth.

Context is important in figures of speech, as for instance in irony. The hearer must infer, from his knowledge of the topic and of the speaker's real attitude towards it, that the speaker means the reverse of what he is saying; sometimes intonation may be of assistance, but that is not always the case, and in print it is often not specially indicated (see further ch. 11). Context is equally important in the case of short or shortened expressions: *Fire! Quos ego . . . !*

Even where it is not necessary, we are accustomed to supplement from the context instead of noting in detail what we are hearing or reading (cf. Spearman 252, 276, 291, Jespersen, Ph. of Gr. 309—310; and Paul, Prinz. 79 with an analysis of context that agrees with the above on all essential points).

6.33. *Active Interpretation.* The receiver of speech bases his comprehension on all the relevant elements described in the preceding paragraphs under the heading of context — the words of the sentence themselves, the non-verbal means of expression, the perceptual context in all its aspects, and his own mental context: previous knowledge of the topic and of the speaker, together with his critical opinion on them all. (On the difficulty of this operation, see Thorndike, Reading; Delacroix 445).

To begin with, context "prepares" the correct interpretation of the words by indicating at least the direction or sphere in which the topic is to be sought, and in many cases it indicates the topic much more precisely: we know what the other man is talking about. We may know something of his attitude to the referent, and we can consequently make a guess at the leading ideas in what he is going to say to us. We may have a personal independent knowledge of the topic, or an opinion on it, which are placed in at least potential readiness and contribute to the attitude that we take up towards the speaker's utterance.

The more a hearer knows of the topic, the context, and the speaker, the easier it is for him to interpret swiftly and correctly what the speaker means, even if the sign should be fragmentary (cf. on incomplete expression of meaning 5.52). "Le degré d'intensité et de précision du signe, nécessaire à la compréhension, est en raison inverse de la compréhension déjà présente à l'esprit. Intelligenti pauca! Dans un demi-jour nous distinguons et reconnaissons les objets familiers, alors qu'il nous faut le plein jour pour reconnaître les autres. Un petit signe d'une personne dont nous connaissons la mimique habituelle nous suffit pour explorer ses sentiments" (Delacroix 448 . Cf. Marty, Unt. 148, Paul, Prinz. 15, 81, K. O. Erdmann 43, Pick, Sprachstör. 139 with quot. from Swoboda; Bühler, Ber. 104, 122).

The actual interpretation of words thus normally takes place in a setting that greatly facilitates its rapid and accurate progress. There is a constant interaction between it and all the contextual factors enumerated. These furnish, so to speak, a blank form which has to be filled in with actual material from the words of the communication, and which may be more or less complete (cf. Selz I 200 on *Blankettnatur der Aufgabe*).

The most important point in the preparation seems to be that the hearer should grasp as quickly as possible the general drift of the utterance, and thus create for his own mental operations a determinant that guides their activity in the desired direction, inhibiting non-relevant elements.[1] This general notion of the total meaning is sometimes furnished by the context, and in difficult cases (as in Bühler's experiments) it may be delayed until the whole sentence has been spoken and the hearer has been able to draw his conclusions from the total.

In order to provide the hearer with necessary data, it is of great importance that the speaker should as soon as possible indicate the general characteristics of the referent, so that it may at least be "placed" in a certain sphere (cf. Marty, Unt. 211), even if not definitely known. If the beginning of the speech is ambiguous and badly expressed, the hearer is at a loss concerning the correct objective reference, and may be completely misled (6.37). Selz (I 194) emphasizes the importance of an early creation of "ein einheitliches Zielbewusstsein" and Stählin's observers were always striving "sobald als möglich einen Gedanken zu finden, dem sie alles Folgende ein- und angliedern können" (Stählin, Unt. 156).

The eduction of relations and correlates involved in the process of comprehending speech does not wait on the actual pronunciation of words, but very often runs on in advance. If, during experiments, a sentence is broken off in the middle, the observer will sometimes report that he was adjusted (*eingestellt*) to the continuation. This may be only an adjustment, but in other cases it is a more or less tentative or definite anticipation of the sequel (cf. Stout II 122 on "connective pre-arrangements"). If the expectation is not fulfilled, there is a feeling of disappointment (cf. 6.37 on mistakes in anticipation). Speech reckons with this process of eduction and anticipation to the extent of not always expressing what may be inferred. Wegener points out that when the beginning of an action is indicated, the sequel is sometimes left undenoted. In the sentence *war was declared on the first of May, but there was no battle,* the use of *but* can be explained only in this way, since there is no contrast between the actual statements in the two clauses. Another instance is *Die Dolomiten sind schön, aber schwer zugänglich.* Here, too, the *aber* can be explained only by a situation in which the beauty is considered as a reason for going there, but the inaccessibility as a reason for not doing so (Bühler, Satz 10). The same tendency shows in the circumstance that a hearer often does not attend to every ending and form word, but listens to the main words of a sentence only, educing the relations between them in less time than it would have taken to follow the utterance in detail (cf. Feldkeller 289 sqq.).

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[1] Cf. Selz II 600: "Aufgabewidrige Assoziationen der durch die Ausführung einzelner Teiloperationen geweckten Wort- oder Sachvorstellungen bezw. der entsprechenden Reproduktionsgrundlagen können gegenüber der durch die feste Zuordnung der Operationen bedingten Erregungsleitung in der Regel nicht aufkommen. Eine lückenlose Kette teils kumulativ, teils subsidiär einander zugeordneter Lösungsmethoden bestimmt in streng fixierter Reihenfolge den gesamten Verlauf der Verwirklichung einer Zielsetzung bis zur Erreichung des Ziels oder zum Aufgeben der Determination und lässt im allgemeinen keinen Raum für diffuse Reproduktionen". — Maier 343 states that the sentence heard evokes "ein logisch-kognitives Interesse"; this is a primary factor and guides the subsequent process of reproduction in a definite direction.

Language is an instrument for the promotion of purposes. This definition must be valid not only for the speaker but also for the hearer. He is mostly the object of the speaker's purpose, and he cannot be said to have understood a communication if he has not grasped the speaker's ultimate intention with regard to himself, the vital connection between the meaning of the speech and the actual situation in which speaker and hearer find themselves. We have seen that this ability is lacking in persons suffering from semantic defects of language (5.26).

It will be evident, then, that the act of comprehension is by no means a merely receptive function. This is clear from the fact that mental content is not directly transmissible, but has to be translated into incommensurable symbols, and re-translated by the hearer into terms of mental content and reference. In this activity, every relevant factor is brought to bear on the task. The hearer proceeds at once to put what he is hearing into relation with what he previously knows of the topic and the speaker, as well as with other relevant matters. He forms judgements, rejects or approves. We have, as Maier points out (346), a large stock of previous experiences by which we can test the truth of what we are listening to.

A completely passive reception of speech occurs, but it is probably rare, and we have to assume all intermediate degrees from that extreme to the other, *i. e.* a critically hostile attitude that rejects the speaker's statements in favour of a personal view on the topic — as when a scholar is reading a treatise on his own pet subject — even if we do not include cases where the speaker, to the hearer's knowledge, is lying. The hearer may coldly refuse to be enthused by the speaker's efforts. We find corresponding phenomena noted by Selz (I 272), when the observers detect contradictions between various factors involved in the task set to them. Similarly a hearer may find contradictions between statements received and elements of the context, which lead to his correcting or denying the statement.

Comprehension of speech, as well as production, requires the participation of the total mental ability.

The interpretation of each word in an utterance is based not only on the word itself, as is the case when it occurs in isolation, but on every item of context that can be brought to bear on the task.[1])

6.34. *Spearman's Analysis of Comprehension.* Spearman (118 sqq.) has analysed the construction of phrase-meaning on the basis of the individual word-meanings.

According to Spearman, the phrase meaning is "fed from three chief streams. The first of these has its source in the fact that the leading characteristics of the initially given individual meanings of the words is their state of extreme disintegration. Each of them has, in general, been abstracted from many things without which it could not exist really. This is particularly important to the extent that it occurs with relations. In language, any of these can be presented quite apart from one, or even both, of its fundaments; for example, such words as "likeness" can be given and understood by themselves. Whereas in reality, no likeness can possibly exist save as relating together two or more like items. Evidently, then, the understanding of the purport (*i. e.*, phrase meaning) of language must include the putting of such fragmentary meanings together again. And this reintegrative operation in its simplest form is just the process which we were discussing in the previous section; the individual meanings are connected together in such a way as to "constitute" a collective meaning or purport.[1])

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[1]) It is necessary to emphasize this circumstance in criticism of, for instance, Marty's and Funke's analysis of comprehension as applied to the theory of *innere Sprachform*, as well as of Wellander's *vermittelnde Vorstellungen*. These are based on the mistaken assumption that a word in actual speech is interpreted in exactly the same way as an isolated word (cf. Marty's analysis of *Löwe*, quoted below 11.59, and 14. 15).

The constitutive relation thus involved has a special, but by no means exclusive tendency to be of the attributive class. It is of this class in the case of coupling nouns with attributive epithets, as "long-time", "violent-blow", "learned-men". Here belong, too, all attributive complements, as contained in "the-time-is-long", "the-blow-is-violent", etc. To these must be added all attributive adverbs, such as enter into "before-now", "extremely-good", or "to-run-quickly". And similar are the cases where an epithet or complement, adjective or adverb, has itself a complex structure. Turning, next, to the classes other than attributive, examples are, "dropping-wears-away-a-stone", or "know-thyself". The first of these belongs to the causal class, the second to that which we have called objective.

Such constitutive process of understanding, it should be noticed, is often only executed to a very incomplete degree. Thus, the purport of "round square" can be understood up to the point of presenting the first individual meaning as an attribute of the second; but it cannot possibly be understood up to the further point of presenting any resultant geometrical figure" (Spearman 118—119).

Spearman's second principle is that of *supplemented* purport. "It makes its appearance when some of the words — perhaps even the larger portion — have been tacitly assumed by the speaker, and therefore must be added by the hearer. Examples are, "Tom plays well, but Dick badly" (omitting "plays" after Dick); "the man has gone away" (omitting "who was here" after man); "Fire!" (omitting "There is yonder a" before "fire") . . . This . . . may upon occasion be simply the eduction of a correlate. Usually, however, the operation is more complex" (l. c. 119; cf. on perceptual context 6.32).

Spearman's third source for collective meaning he calls *indicated* purport (see the quotation in 4.265 above). Indication is used "when the constituted collective meaning links a relation to only a single fundament. For these two individual meanings together give birth to their correlate; and in the very act of so doing, they renounce being any portion of the purport themselves" (l. c. 121).

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[1]) Spearman describes the constitutive relation in the following manner: "Let any two items of awareness be symbolized by the letters *X* and *Y;* any relation that holds between them, by *r;* and all three cohering together, by the bracketed (*X*, *r*, *Y*). We can then, with linguistic appropriateness, say that *X*, *r*, and *Y* are "constituents" of (*X*, *r*, *Y*). In other words, *X*, *r*, and *Y* bear to (*X*, *r*, *Y*) a relation which may be called that of constitution" (Spearman 71).

In addition to these three methods of constructing the phrase meaning, various other operations are involved. "A very large number of further eductions usually enter into the understanding of the language by way of embroidering the main body of the discourse with all sorts of incidental references, commentaries, and criticisms. For example, one clause may be noticed to corroborate or to contradict another.

It thus appears that the understanding of even comparatively brief linguistic structures must involve the noetic unit-processes in very great number. Whether by the educing of correlates or by that of relations, and whether by constitution or by supplementation or by indication, every single word has to make its influence felt in manifold directions. It has to do so, firstly, upon the phrase in which it stands immediately inserted; secondly, and through the mediation of this phrase, upon the sentence to which the phrase primarily belongs; thirdly, through the further mediation of the said sentence, upon more complex sentences in which the latter is compounded; thence again, upon paragraphs, chapters, and other aggregates of still greater magnitude" (l. c. 121—122).

It seems evident that the elementary processes described by Spearman play an important part in comprehension. We must assume them to be based not only on the words, but on all relevant items of context. Whether we should consider it possible to explain fully the phrase meaning on the basis of such processes, or if we should assume the phrase to have still further possibilities of its own, is a problem to which I shall return below (6.38).

6.35. *Bühler's Experiments on the Comprehension of Sentences.* Bühler's observers were instructed to report their experiences as soon as they had completely understood the meaning of the sentence that was read to them. The reports say little on the building up of the phrase-meaning, concentrating their attention on the moment of understanding, and what happens just then. I shall quote two of them.

"Hat Eucken recht wenn er meint: selbst die Schranken der Erkenntnis könnten nicht zum Bewusstsein kommen, wenn der Mensch nicht irgendwie über sie hinausreichte?" *Report:* Sofort recht skeptischer

Zustand (wesentlich lokalisiert in meiner Gesichtsmiene). Der Satz war lang, aber gleich übersehbar (ich konnte den einen oder den andern Teil mehr beachten). Es schloss sich eine kurze Überlegung an, die ich dem Sinn nach so beschreiben kann: wie E. wohl zu diesem Satz gekommen sein mag? (nichts gesprochen). Da kam mir plötzlich mit einem Aha! der Gedanke: das ist die bekannte Anschauung, dass Grenzen nur vom Überragendem aus festgestellt werden können. Dieser Gedanke war mir gleich ganz klar bewusst, aber ohne die Form, die ich ihm jetzt erst gegeben habe (von Worten kam mir nur ein Fragment wie "über"). Darnach flüchtige Erinnerung an einen andern Gedankengang gegen den ersten gerichtet und an das Wort "prinzipiell" geknüpft. Etwa so: prinzipiell lassen sich Grenzen auch feststellen etwa von dem Begriff des Erkennens her (von den andern Worten nichts gesprochen, aber ich hatte im Bewusstsein ungefähr den Sinn, den sie ausdrücken). Das Nein erfolgte ganz prompt ohne Ablenkung" (Arch. 9, 305).

(Verstehen Sie?) "Man muss sowohl mitleidig als grausam sein, um eins von beiden sein zu können". *Report:* Zunächst war ich dem Satze gegenüber vollständig ratlos. Es trat ein Suchen ein, das hier den Charakter eines wiederholten Sichvergegenwärtigens der beiden Teile des Satzes trug; so etwa, wie wenn ich mich gefragt hätte: "wie fängt man das an, grausam zu sein, um mitleidig sein zu können und umgekehrt?" (Das ist nur Umschreibung, in Wirklichkeit nichts gesprochen). Auf einmal kam mir plötzlich und unerwartet der Gedanke, dass die Ausschliesslichkeit des einen oder anderen Zustandes sich selbst aufhebt, dass beide eben nur durch den Kontrast bestehen können (was durch diese vielen Worte wiedergegeben werden soll ist gedanklich ein einziger Akt gewesen). Dann hab' ich mir die Sätze noch einmal wiederholt, und dabei hatten sie eine andere Beleuchtung, ich verstand sie" (Arch. 12, 13).

6.36. *Variations in the Process of Understanding.* In drawing conclusions from Bühler's reports we must keep in mind that these sentences are isolated, in the sense described in 4.22 above. Even when making a statement on a unique referent, they are not an expression for an individual attitude, and consequently lack a distinguishing characteristic of actual speech.

They are artificial in some respects. The observers were confronted with phrases on an entirely unexpected topic. In actual speech, as

has been pointed out above, we mostly know of what the other party is speaking, and have at least a knowledge of the sphere in which he is moving. We need not wait for the last words before we begin the interpretation; we can start at once, since the "Sphärenbewusstsein" will guide the selection of meanings correctly. Bühler's sentences are all of them expressions for *one*, very complex, thought. Hence the observers were practically compelled to wait until the end of the sentence before they could grasp with certainty the main topic.

The reports show that after the perception of the sentence there is sometimes a pause. The phrase meaning then often comes suddenly, as from nowhere. Bühler calls this "das Aha-Erlebnis" (Ber. 117). It is, he says, a "Beziehungserlebnis". A previously known, familiar notion is reproduced, and the hearer becomes conscious of a definite logical relation between this notion and the one expressed by the sentence. The relation may be one of identity, similarity, contrast, subsumption, causality, etc. The importance of this relation is clear, for by the conscious apprehension of the relation, the new notion is "placed" in the mental world of the hearer: it is notionally pigeonholed, and is thereby understood (l. c., Arch. 12, 13—14).

Since phrase-meaning is not the sum of the individual word-meanings (cf. 6.38) it follows that the phrase-meaning as a totality must have been grasped before the "Aha-Erlebnis" can occur. "Das charakteristische Verständniserlebnis findet zwischen Ganzem und Ganzem statt. Daraus geht aber ohne weiteres hervor, dass das Aufzufassende zunächst ein Ganzes geworden sein muss, bevor es aufgefasst werden kann" (Bühler, Arch. 12, 17). It seems evident that this form of understanding is equivalent to Hermann-Cziner's explicative understanding (6.22), but that also it is not the only possible form.

Bühler also found (l. c. 19) that phrases could be understood without any mediating experiences. His observers report, for instance, "Ich habe nichts erlebt, als dass ich wusste, was der Satz ausdrücken will". Similarly, other experimenters report that the words may appear *to be* the meaning (Spearman 257, E. Jacobson). Cf. the corresponding process in speech production, where the words issue immediately on the intention to say something. The reproductive effect apparently is bound to the phrase as a whole, on a collective apprehension, and it reproduces a corresponding total pattern in the hearer's mind (Cf. Selz I 98, on *das Gesetz der Komplexassoziation*, and l. c. 101 with quot.

from G. E. Müller). In these cases an originally complex process is telescoped into one comprehensive act and cannot further be analysed.

With regard to Hermann-Cziner's third type, representative understanding (6.22) would seem to occur only for less complex mental content, but scarcely for whole sentences; at least not sentences of a more complex type.

I think, therefore, that we may establish the existence of two main types of understanding, whether the content be simple or complex: direct understanding and mediated understanding. The former is probably typical of simple and familiar meanings, and occurs with complex meanings only if they are sufficiently familiar to be grasped as units. The latter type occurs in the case of less familiar meanings, as well as in complex cases.

Although there are, as far as I know, no investigations of the problem, I may perhaps suggest the possibility of further distinctions in the process of understanding. According to Selz, we can distinguish three forms of sentence formulation, leaving out cases where the sentence is conceived as an undifferentiated whole (5.32 sqq.). Can we make a corresponding distinction with regard to the forms of comprehension?

A synthetic type of comprehension would imply that the hearer is in possession of all the words of the sentence, and arrives at an understanding of the total meaning by a simultaneous combination of the single word meanings. It seems reasonable to assume that this is the case with many of Bühler's instances.

A gradual type of comprehension would imply that the total meaning is gradually built up as the hearer apprehends the individual word-meanings, and is able to add, by their means, one characteristic after the other to the total meaning. It is not improbable that a process of this type is common in cases where anticipations of what is going to be said, play an important part; the actual words gradually determine and define this anticipation: they fill in the blank (6.33).1)

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1) Poppelreuter states that if there are, in a mental complex, some elements with a stronger and others with a weaker reproducibility, then the former elements take precedence, and the reproduction does not necessarily follow the strict order of contiguity (Poppelreuter 271). In a gradual form of comprehension this would imply that comprehension may crystallize round salient or familiar words, and not always follow the word-order.

In the gradual type of formulation the sentence schemes play an important part as guides to verbalization (5.34). Similarly, in comprehension, we expect, for instance, an antecedent pronoun to be followed by a relative clause; a *not only* makes us expect a subsequent *but*; peculiar intonations indicate question, concession, command, and so forth; non-verbal signs are also informative. The anticipation of the hearer is probably more or less determined in form by sentence-schemes (cf. James I 254, quoted by Pick, Sprachstör. 271).

An analytic type of understanding would imply that the hearer possesses an awareness of the total meaning, and then, with the assistance of the words to which he is listening, differentiates its elements. This type might possibly occur as an extreme case of the preceding: the anticipation would approach completeness, and the words would only carry corroboration.

The discussion above is based on the assumption that the hearer aims at complete understanding of what is said. In other cases, perhaps more in reading than in listening, the hearer (reader) is satisfied with grasping the main points. In very rapid reading one notices a section here and there, some prominent single words, and so forth, filling in the remainder on the basis of one's own knowledge of the topic and of the writer's attitude. The amount of supplementation is increased while the content actually apprehended through the words is correspondingly lessened (Pillsbury-Meader 143).

Another distinction may be made between different ways of attending, or different purposes in reading. "Anyone may read proof accurately and know little or nothing of the sense when finished. One may read to appreciate certain points in the style of an author and get that to the practical exclusion of all else, or, and this is more frequent, one may read for the content and get nothing or very little of the words or have little appreciation of the style of the author . . . One may read a book for the author's opinion on some one point and get a very complete account of that without learning much of anything else. This last becomes partly selective memory, but it is also in part a matter of selection and supplementing in reading . . . The selection in each of these instances depends in part upon what is selected from the stimuli offered, but also in part largely upon the associated ideas that are called out or permitted to enter into consciousness" (Pillsbury-Meader 144).

6.37. *Mistakes in Anticipation.* If the latter part of a sentence does not continue in the direction that seemed to be indicated by its beginning, comprehension will be more or less confused, or there will at least have to be a change of orientation on the part of the listener, often a very perceptible change of attitude. The following sentence is quoted from Stählin's experiments (Unt. 157): Das allgemein Menschliche ist die Sehnsucht für etwas Grosses angesehen zu werden. One observer reported: the sentence at first pleased me, but to my horror it went on: to be considered great. Another instance is the French couplet: Le monde est plein de fous, et qui n'en veut pas voir Doit se tenir tout seul — et casser son miroir — where the last half-line will cause a sharp break in the line of thought of most persons reading it for the first time. (Other instances, see Beckman 15, Marty, Unt. 148).

Bühler has also some instances of mistaken anticipation regarding the continuation of a sentence. After having heard the sentence "Knaben pflegen den Käfer an kurzem Bande zu halten, aber an kürzerem noch halten die Fürsten den Mann", the observer declared: "Ich war am Schlusse enttäuscht, ich hatte erwartet. . . werden sie von den Frauen gehalten". "Diese Erwartungen", Bühler adds, "sind für die Erfassung des Zusammenhangs vielleicht ebenso wichtig als die Rückbeziehungen" (Arch. 12, 83). Such anticipatory constructions occur even when we listen or read with great attention (l. c.).

This "Bedeutungswechsel" was noted by Messer (Arch. 90—91), and it is remarkable that even in his experiments, where single words were used as stimuli, the observers state that the change of referent is accompanied by a change in the appearance or "feel" of the stimulus word. Thus one observer reports: "Das Reizwort "Mark" erst als Geldstück aufgefasst; dann sofort an Mark Brandenburg gedacht. Auch das Reizwort, das ich noch fixierte, erschien in anderem Licht; es hatte einen anderen Wirkungsakzent, als der zweite Gedanke eintrat" (l. c.). Bühler quotes similar observations from his experiments (Arch. 12, 21; cf. Messer, Empf. u. Denken 102).

The two different apprehensions may arise simultaneously, or the consciousness of ambiguity may even come before the apprehension of meaning. One report says: "Ich hatte sofort das Bewusstsein, dass das verschieden verstanden werden könne, ohne noch klar zu wissen, wie" (l. c. 22, cf. Selz I 244—245).

6.38. *Word-meaning and Phrase-meaning.* From what has been said above on the comprehension of sentences it follows as a corollary that the meaning of a sentence is not equal to the sum of the individual word-meanings. The semantic interrelation of words and phrases has been touched upon in 4.27 from the descriptive point of view, and in 5.51 from the point of view of the production of speech. To the evidence there adduced may now be added evidence from the process of comprehension. Bühler's reports are decisive in proving that the meaning of a sentence involves supra-summative elements of the greatest importance: we are able to understand every word in a sentence, and still not understand the sentence as a whole.[1])

Although the matter as yet seems to be insufficiently investigated, we should probably regard phrases as configurational structures (*Gestalten;* see 2.13 and 4.27). It is characteristic of a configuration that it contains supra-summative properties that belong to it as a whole, and are lost in analysis. ”One finds space-forms which possess more properties than their elementary visual sensations; the same is true of melodies with respect to the tones which compose them, and of intellectual processes with respect to the data in which they originate. For it cannot be assumed that sensations of color and tone, and meanings of single words, are to be considered as ’parts’ of space-forms, melodies and higher thought processes; since the exact impression of a visual figure or of the specific character of a musical motif, and the meaning of an intelligible proposition, contain more than a sum of patches of color, tone sensations, and individual word-meanings" (Helson, 36, 347, quoting Köhler, Die psychischen Gestalten 1920). "It is impossible to describe or derive real wholes from a knowledge of parts. Since the whole possesses its own specific properties, we can never tell in advance from a knowledge of the parts what the whole will be or how it will behave" (Helson, l. c.; cf. also Gomperz, Sinn 36 sqq., especially 39 sqq.).

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[1]) An amusing instance is given by Otis: Let us define the word, *incration*, as meaning the increase in the number of feet per second per second by which the motion of a body is accelerated. A corollary of this statement is, not that the unit of incration is one foot per second per second, but that it is one foot per second per second per second. Most educated people will understand each individual word in this statement, but most non-mathematicians will require some time and thought for grasping the import of the whole. Otis explains it in the following manner. The unit of rate is one foot per second. The *acceleration* of a moving body is the increase in its rate, that is, the increase in the number of feet per second which it moves in succeeding seconds. The unit of acceleration is one foot per second per second, that is, one foot per second every second. And again, the *incration* of a moving body is the increase in its acceleration, that is, the increase (from second to second) in the number of feet per second per second by which the motion of the body is accelerated. The unit of incration is the unit of acceleration every second, that is, it is one foot per second per second per second (Otis, Psych. R.).

Helson further discusses the question of the decisive factors in any given configuration, with regard to the properties of the whole and to modifications within the structure. "Sometimes it seems to be the form of the group which is of especial importance in determining the character of the configurational changes; at other times it may be some single factor within the group which exerts its influence over the rest; or again it may be the internal relations of the parts which determine what the whole shall be. And often the configurationists confess that the determinants of configurational events are due to a variety of factors some of which are unknown" (l. c. 348). With regard to the peculiar properties of configurations, some theorists assert that new properties belong to the configurations as totalities, and are functions of the configuration itself. Others maintain "that the configuration is not univocally determined whether as to form or as to structure. Thus four dots arranged in the form of a square may be seen as two horizontal lines, two vertical lines, or two oblique lines at right angles to each other. . . the determinant in equivocal cases must be some higher psychical factor which unites sensory contents into patterns" (l. c.).

Since phrase-meanings are not among my subjects, I shall content myself with these brief indications concerning an interesting problem (I refer the reader to the bibliography given by Helson, Psych. Rev. 37). It seems that Helson's remarks on configurations may be applied to phrase-meanings. It is impossible to say definitely, for lack of investigations, whether the properties of phrase-meanings are entirely derivable from word-meanings in orderly juxta-position, or if we are to assume that the phrase has a meaning of its own, accruing to it as a totality. In the former case, an analysis on the lines indicated by Spearman (6.34) would be adequate, and would lead, if properly conducted, to a complete explanation. In the latter case, such a method would have only a partial success, and there would remain elements of meaning that would have to be sought for in other ways. (Cf. Wundt, Phys. Psych. III 555, on *das Prinzip der schöpferischen Resultanten*,

also quoted by Spearman 116; Stout II 1 sqq. on noetic synthesis; Delacroix 203: il n'y a pas que des pierres dans une maison. Mais que serait la maison sans les pierres? Gomperz, Sinn 39 sqq., esp. 42).

Wundt and others have emphasized the priority of phrase-meaning to word-meaning, and it is indubitably true that the word-meanings are "embedded" in the phrase-meaning (Gomperz II. 1. 261). But Wundt was not right in assuming that formulation is always an analytic process, and Selz has shown that the word may arise in the mind before the sentence, even for the speaker. We have to say, then, that word-meanings and phrase-meaning are mutually dependent on each other. It is only as a member of the actual utterance that the word really carries this or that (actual) meaning; and, conversely, the phrase-meaning is built up on the basis of word-meanings and their interrelations. The words symbolize elements of a total referent, which, as a total, is symbolized by the whole sentence. From the subject's point of view, the sentence expresses, through the orderly combination of words, more or less completely, his adjustment to the situation and his ultimate intention with regard to it.

From these two points of view, that of the referent and the subject, the word-meaning is undoubtedly largely determined by being an element of a definite phrase-meaning. But from the third point of view, that of the word, the word-meaning asserts a certain independence. The word has a comparatively stable traditional range, and, whatever the context, the actual meaning must normally fall within the range.

With regard to the purposive function of speech, I have assumed it to be a configurational quality, and here the word-meanings can only act indirectly. This aspect of the matter is very little known (cf. 4.27).

6.4. Temporal Relations in the Process of Comprehension. It would be of the greatest interest to the present study if it should prove possible to ascertain the order in which the various processes follow each other in the comprehension of speech. We found that in the production of speech no definite order prevailed, and it seems as if the variations were equally numerous in comprehension. A great many processes are going on at the same time. "And particularly remarkable is the fact that this simultaneousness appears to happen even in respect of the processes which are built up in successive levels. For in such case, the eductive growth is unlike the building of a wall, where first one layer is finished, and then another above it, and so on. It is more like the waxing of a tree, which does not first complete its roots, then stem, then branches, then leaves, all in succession, but develops all these overlappingly. So in the cognitive cellulation also, the lower levels are allowed only a limited degree of priority. Whilst they are still extremely obscure, the upper levels already begin growing also, and to the full extent that their as yet very imperfect understructure becomes from moment to moment capable of supporting. This fact has been strikingly demonstrated in respect of ideation by the following experiment. It has been shown that when a person has read through a short passage in a book, his subsequent reproduction of it usually commences not with any portion as it was read originally, but instead with a most compendious awareness of the gist of the whole. The explanation given by the investigator himself runs as follows: 'the concentrated essence of the whole is the first thing to come up in our minds, because it is the one thing that was growing while every other thing was being thought' (Henderson, Psych. Mono. 23, 1903). Evidently, to grasp the "concentrated essence" implies to understand, not only each word as in relation to previous words, but also each clause as in relation to previous clauses, and each sentence to previous sentences" (Spearman 82).

With regard to the production of speech, we were able to state at least what the initial and final stages normally were: the taking up of an attitude and the final verbalization. With regard to comprehension we can apparently not do even this (6.36). We may anticipate what a person is going to say at the moment when, or even before, he opens his mouth, and we may be right. It might be argued that this is not understanding speech: it is inference. On the other hand, inference, eduction of relations and correlates, and supplementation, are so interwoven with the process of understanding connected speech that any discrimination is difficult.

The continuation of the process is, as stated by Spearman, highly complex, and the mental content goes on growing at higher and lower levels simultaneously. No orderly succession of events can be established.

The final end of comprehension is to grasp the general significance and intention of the speech. But as far as I can see, we cannot assign the last place to this stage in all normal cases, for it cannot be called an abnormal case if the listener anticipates, before he has heard more than part of the speech, what the phrase-meaning is to be. That is or may be a case of rapid eduction.

If we exclude eductions and supplementation as not belonging to comprehension in the narrower sense, we may of course say that the process begins with the perception of the words, and ends in the final comprehension of the speaker's ultimate intention.

The variability in the process of understanding is no doubt of great value in making it possible for the hearer to adapt himself to unexpected meanings. If a word is used in a modified sense, the remainder of the sentence, whether coming before or after the word in question, will enable the hearer to correct his first interpretation, if it was incorrect. If the word has been interpreted at first according to its habitual meaning, the hearer is able without difficulty to modify his apprehension in the light of subsequent context. In this way the hearer is able to follow the precise shades of meaning of a speech, provided they are adequately expressed, whether they fall outside or inside the habitual semantic range of the words. The importance of this fact for sense-change is obvious. Modifications made by the speakers are at once communicated to the hearers.

6.5. Intended and Comprehended Meaning. Identity and Discrepancy. The definition of meaning given above (3.27) makes meaning strictly individual: it is the subject's apprehension of the referent, and it varies from person to person. It follows that the meaning connected with a word may not be identical in the case of two persons who are conversing. I shall call the meaning given to the word by the speaker, intended meaning, and that given to the word by the hearer, comprehended meaning (Wellander, Studien I 9: *gemeinte und erfasste Bedeutung*).

The mental content as such is normally incommunicable. It must be translated into a sign system, and retranslated by the hearer into mental content. It is evident that the greater the similarity of the interlocutors in general knowledge and outlook, the easier and more perfect is their mutual comprehension. Considerable differences in these respects cause a correspondingly greater risk of misunderstandings (Paul, Prinz. 15, 78).

Among the factors working for identity of intended and comprehended meaning, I mention first the range of the word, regarding which speaker and hearer have, normally, approximately similar notions (3.25). The hearer is debarred from attributing to the word meanings that fall outside the habitual range.

Further, context, in the widest sense of the term, guides the hearer in making the specific objective reference intended by the speaker. I have shown above (3.23) that an identical objective reference guarantees mutual comprehension in so far as the two interlocutors are speaking of the same referent, however different their knowledge of and adjustment to this referent may be. Correct understanding hinges first and foremost on a correct objective reference.

If the hearer makes an incorrect objective reference the utterance will in many cases not make sense; the mistake is then quickly detected and rectified. This is, I think, the most important censoring factor. However, mistakes due to misunderstandings and equivocation are deplorably common, even in scientific discussions. The speaker not seldom, although mostly unintentionally, makes use of ambiguous terms; for his own part, he intends one of the possible meanings, and he neglects to provide against the hearer's apprehending another.

The difficulties of correct comprehension are in one way increased when we pass to phrase-meanings, since the hearer has not only to understand the single words, but to understand the phrase as a whole. I have described above the nature of this process. Since speech is discrete (5.51), the risk of misunderstandings is increased; it is not certain that the hearer will be able to make the correct eductions and supplementation (Bühler, Ber. 118 sqq.). On the other hand, the mutual determination of the words in a sentence lessen the risks for incorrect objective references (6.32).

A meaning comprises also the speaker's subjective apprehension of the referent. We have therefore to ask, if and to what extent this element of meaning is communicated to the hearer, so as to enable him to evoke a subjective apprehension similar to that of the speaker, or at least to be informed of the speaker's apprehension even if he does not participate in it. I have already discussed this problem with regard to imagery (4.142) and emotional elements (4.153). Speaking generally, it seems probable to me (the problem has, as far as I know, not been properly investigated) that the subjective apprehension is communicated to the hearer in so far as it belongs to the habitual semantic range of the word as applied to the referent in question, but if it does not, the hearer has to educe as much as he can from the various factors of context, as described in the previous sections of this chapter.

In this respect, then, there is always a discrepancy between intended and comprehended meaning; as long as the objective reference is correct, discrepancies with regard to the subjective apprehension may be unimportant for the practical purposes of speech, but as soon as we leave everyday life, and enter the realms of theoretical discussion, such discrepancies, too, may prove fatal to mutual comprehension. Every reader of this page will be able to provide instances from his own experience.

An extreme case is complete non-comprehension, when the hearer either is unable to make the correct references for the individual words, that is to say, he does not understand them, or else understands the individual words, but fails to perform the further necessary operations of eduction and supplementation (cf. Otis' instance, 6.37). The reason may be insufficient acquaintance with the matter, *i. e.* inability to integrate the referent in any system of relations known to him. (Ward 301; cf. Thorndike, Reading 323 sqq., and Spearman 122 on failure in execution). In general, if the speaker employs expressions chosen with regard to his own mentality only, they may not call forth adequate references in the hearer's mind (Cf. Husserl II. 1. 418, Marty, Unt. 463—464, with additional instances, Delacroix 440).

Another extreme case is the rejection by the hearer of a communication as not compatible with facts. The hearer is then able to make the required eductions and supplementation, but he is not able to make a reference to facts, since in his opinion there are no facts to which the statement can be referred. (Cf. Marty, Unt. 362; and 5.52).

CHAPTER VII

GENERAL THEORY OF SENSE-CHANGE

7.1. Definition and Preliminary Delimitation.

7.11. *Change and Stability.* Every utterance is the expression of the momentary state of mind and purposes of the speaker. Every man has — within reasonable limits — thoughts and feelings to express that are peculiarly his own, and also his own way of expressing them. Moreover, many referents are constantly changing, compelling changes in the utterances by which they are symbolized. If speech were determined only by these factors, it would vary indefinitely.

But every utterance has also to symbolize stable referents, and to carry a communication, and these functions work for stability. They compel the individual speaker to conform — again, within reasonable limits — to the ruling language system (cf. 2.11), otherwise he would not be understood by his hearers. A limit is thus set to the variations of speech.

An utterance is, on the one hand, the product of the momentary situation and the individual speaker's reaction to it: as such it is subject to variations in different respects; on the other hand, it is a realization in concrete linguistic material — words, meanings, and sentence schemes — of a portion of the language system: as such it tends to conformity with previous utterances referring to the same kind of referents, and spoken by the same or other speakers. The language system serves as a norm for the individual utterance, moulding it in the traditional form.

The actual course of semantic development emerges as the result of these conflicting tendencies; and according as one or the other of them prevails with regard to a complex of word and meaning, we find that the complex remains stable throughout long periods, or, conversely, that it offers a picture of constant change.

Change and stability are equally normal phases in the history of language; only the total absence of either would be abnormal.

7.12. *Definition of Sense-change (Change of Meaning).* When a word is employed to express a meaning which it has not previously expressed, we have, from the point of view of the word, a change of meaning. Often a change of meaning is also a change of referent (for details, see the following chapters); from the point of view of the new referent, we have then a change of name. The former point of view is that of semasiology, the latter that of onomasiology (cf. 1.2).

If a word is used with a new meaning once only, the matter is of no importance for linguistic development; but if it is thus used repeatedly, and by a comparatively large number of speakers, the incidental use becoming habitual, there is established a permanent connection between the word and the new meaning. The traditional semantic range of the word is modified accordingly, often the referential range also.

A change of meaning is not necessarily a change of referent. According to the definition adopted in the present work (cf. 3.27) a change in the manner of apprehending a referent is also a change of meaning. The word then symbolizes a referent or some referents within its traditional referential range, but it expresses a changed subjective apprehension of them. This type of change is especially instanced by adequation (ch. 14).

I define change of meaning as the habitual modification, among a comparatively large number of speakers, of the traditional semantic range of the word, which results from the use of the word (1) to denote one or more referents which it has not previously denoted, or (2) to express a novel manner of apprehending one or more of its referents.

7.13. *Change and Fluctuation.* The wording of the definition in the preceding paragraph brings us immediately to the problem of change and fluctuation, and the distinction between them.

It has been pointed out in the previous chapters that, strictly speaking, the psychic processes always vary from instance to instance, and from individual to individual. The variations are largely variations of context — of "setting" — due to the constantly shifting circumstances in which the word is employed, and to the similarly shifting apprehension and purposes of the speaker.

I have referred above (3.24) to the circumstance that "what for one is no more than a *kodak*, develops for the perception of another into a *reflex, extension, swing-front, focal-plane, anastigmatic hand-camera de luxe*", and I have stated that I do not consider that the word *kodak* has the same meaning for the two individuals. But the ignorance of the one or the special knowledge of the other does not constitute a permanent change of meaning for the word. They apprehend the referent differently, but these differences are a matter of individuals, and, at least for the moment, not a matter of the speaking community or of any considerable group within it. They have not yet led to any permanent modification of the *traditional* semantic range of the word *kodak*. I therefore regard the differences as fluctuations, not as changes of meaning.

Nor do I regard as changes of meaning the shifts of apprehension involved in occasional specialization (cf. 4.24), or particularization (4.23). If these processes become habitual, a sense-change may result (cf. 14.8).

The expression "the community or any considerable group within it" covers another point of uncertainty. There are, obviously, all degrees between the individual variation and the change adopted by the whole speaking community. Shifts peculiar to individual trades and professions are generally recognized as definite changes of meaning, even if the trade or profession in question should happen to be exercised only by a comparatively small number of people. On the other hand, there are modifications of meaning which are known only to a family, a coterie of friends, among the staff of an institution, or the members of a school class, or any other similar little group. These modifications of meaning must be classed as fluctuations as long as they do not pass the boundaries of the group where they originated.

A third point of contact for fluctuation and change lies in the factual variations of the referent. There are, no doubt, constant alterations in the manufacture and construction of *kodaks*, as improved types are produced, but these variations cannot be said to lead to a sense-change until their cumulated effect, working in one direction, results in the production of something that presents itself as a new sub-category of kodaks, apprehended as such at least by some considerable group of speakers. Cf. also 12.13.

It will be evident from these remarks that the discrimination of fluctuation and change of meaning is a problem of great difficulty, which requires much further investigation. In practice it will often be impossible to assign an individual instance definitely to one or the other class. We have to be content, at present, with formulating the rule that a change of meaning must involve a *habitual modification* of the traditional semantic range of a word among a *comparatively large* group of speakers. In other words, the change must have become incorporated in the language system of the group.

7.2. The Seven Classes of Sense-change.

7.21. *The Fundamental Point of View.* If we compare a new meaning of a word with the earlier meaning out of which it arose, we find that the change has caused a modification of the mental content that constitutes the meaning. The logical relation between the earlier and the later meaning has been utilized by many writers to classify the semantic changes. It has been found, however, that such a classification cannot be made exhaustive (cf. 1.3).

We may, further, study the psychic processes which result in, or are involved in, the changes of meaning, and classify the changes on that basis. Wundt and other writers have proposed psychological classifications, but their systems have not been satisfactory, chiefly owing to the fact that they were founded on an inadequate analysis of the nature of meaning, and on an insufficient linguistic material.

For my part, I began by analysing and sorting historical instances of sense-change, mainly with regard to the psychic processes involved. By this *empirical* method I arrived at the result that there are seven main classes of change; they are enumerated in the following paragraphs. I then turned the matter round, in order to ascertain if these classes were statistical types only, or if they formed an organic and coherent system. I found that the latter was so to a certain extent. By applying the psychological principles explained in the preceding chapters, and the definition of meaning proposed in ch. 3, the seven classes can be arranged in a satisfactory system. The principles are explained in 7.3, and in detail for each class in the relevant chapter.

The adoption of psychological principles for the distinction of the main classes does not imply that the logical points of view are to be discarded altogether. It will appear from the detailed treatment below that they are indispensable for making further divisions in each class. It is a mistake to assume that a satisfactory semantic classification can be founded on psychological considerations alone. These give us, to begin with, only a limited number of main classes or groups, too large for practical purposes; and logical points of view must be applied for breaking them up into smaller groups of a more convenient size. Secondly, many psychic processes may lead, indiscriminately, to one or the other semantic result; conversely, different processes may give the same result. Since it is sense-changes I am classing, such processes are useless for my purposes. I can make use only of phenomena that are constant concomitants of a group of changes, and of that group alone. Moreover, we cannot always determine with precision what psychic processes are involved in one or the other change of meaning.

It should be added that the logical relations holding between meanings are often direct reflections of the factual relations between the corresponding referents, and the latter relations are of great importance for the changes affecting their names. I refer for details to the following chapters.

In the present chapter, the general principles of sense-change will be the topic of discussion. In order to provide a material to work on, I shall first give a typical instance of each of the seven classes, with a brief analysis of its main characteristics.

7.22. *Class I. Substitution.* Substitutions are sense-changes due to external, non-linguistic causes. The word *ship*, at present, may have meanings that were unknown at a time when *steam-ships*, *motor-ships*, *airships*, etc., were not yet invented; and it will no doubt go on gathering new meanings in future, as new types of ships are built. The new referents were apprehended by English speakers as belonging to the category of *ships*, and they were therefore denoted by the same name. *To travel* nowadays calls up the thought of trains, motor-cars, steamships, and air-planes, while a hundred years ago it made people think of horses, stage-coaches, and sailing-ships. The cause of such shifts, as well as others of cognate types, is the development of technique and other cultural factors, which lie altogether outside language and the speech activity. Language only registers the change. In this respect substitutions differ from all the other types, which without exception are due to psychic causes connected with the speech activity.

7.23. *Class II. Analogy.* Analogy plays as important a part in the semantic system as it does in the morphological system. There are several types, of which I shall quote one. The English adjective *fast* has two meanings that are almost contradictory, 'firm, immovable', and 'quick'. There are no intermediate senses that might have served as links in a development from the former to the latter. The adverb *fast* (ME. *faste*), on the other hand, shows a continuous development from the earlier sense 'firmly, immovably' to the later sense 'quickly'. It is evident that, as stated by the NED, the adjective has "borrowed" the sense 'quick'. In other words, when the adverb had acquired the new sense, it was, by analogy, extended also to the adjective; our linguistic feeling is accustomed to adjectives and adverbs of the same stem having strictly correlated senses.

7.24. *Class III. Shortening.* If, for some reason, a word is omitted from a compound expression, which still retains its meaning, the remaining words or word have to carry the total meaning that formerly belonged to the whole expression. If the omission becomes habitual, the result may be a sense-change for the remaining word or words. Thus, *private* 'common soldier' is a shortening of *private soldier;* the noun has been omitted and the adjective has acquired nominal character, as shown by its ability to take a plural ending.

7.25. *Class IV. Nomination.* All speech is more or less intentional, in so far as it is an instrument for the promotion of purposes. But the intentional character of speech concerns primarily its import, not its form. The selection of words, as well as their syntactical arrangement according to traditional sentence-schemes, is left to the care of lower centres, the activities of which are almost completely automatic, and we intervene consciously only when something goes wrong and has to be rectified. However, sometimes we also pay attention to the *form* of our utterance. We wish not only to present the topic to the listener in an objectively correct way, we wish also to make the hearer take up a definite attitude towards it, to perceive it in a certain colour, and so on. We then strive to select words suitable for the purpose, and it is this intentional selection of words that is here meant by the term intentional (cf. 11.13 for details). In such cases the speaker may find that he cannot make his point without employing one or more words in a new way. When Keats begins his *Ode on a Grecian Urn* with the words:

Thou still unravished bride of quietness,
Thou foster-child of silence and slow time —

the metaphors are intentionally chosen for their power of expression and impression, and they are new in this use. Nominations are trans fers in which a name is intentionally transferred from one referent to another. The distinction between intentional and unintentional is often vague.

7.26. *Class V. (Regular) Transfer.* I include in this class only unintentional transfers, based on some similarity between the original (primary) referent of the word and the new (secondary) referent. The condition of the transfer is the speaker's perception of the similarity, on which he bases a transfer of the name from one referent to the other. Thus, thin objects resembling a leaf in shape, may be called *leaves*. In other cases, the basis of transfer may be a similarity of function, as when *bed* is used for the foundation of a steam-engine or other machine, because it supports the machine as a bed supports a person lying on it.

7.27. *Class VI. Permutation.* In the phrase *he is counting his beads*, the last word (ME. *bedes*) originally meant 'prayers'. In the Middle Ages, prayers were mostly Pater Noster and Ave Maria, which were said repeatedly, being counted by means of the little balls on a rosary. To count one's prayers and to count the balls of one's rosary was, then, almost the same thing as regards the purpose of the action. A person saying *he is counting his beads*, which meant 'he is counting his prayers', would in reality see the man referred to counting the balls of his rosary. There was thus set up a close association between the word *beads*, with its primary meaning 'prayers', and the notion of 'balls'. Moreover, it was often quite immaterial whether the phrase was understood in the one way or the other; it remained, nevertheless, an adequate designation for its total (phrase) referent. The meaning is "equivocal" (cf. 13.12) but either interpretation will serve. The result is that, finally, the word *beads* is employed to designate the balls.

7.28. *Class VII. Adequation.* I have taken the term adequation from Stöcklein, who describes some types belonging to this class. It is, essentially, an adaptation of the meaning to the actual characteristics of the referents which the word is employed to denote, but in contradistinction to substitution, the cause of the shift lies in the subjective apprehension of the speakers. *Horn* was originally 'an animal's horn' and was so called even when used for producing signals or music. The chief characteristic of such a horn was after all not the material from which it was manufactured, but the purpose for which it was used; and the notion of this purpose became the predominant element of the meaning of *horn* — when applied to such objects. The meaning of the word was adequated (adjusted) to the real characteristics of the referents. When the adequation was completed, the word could be transferred to similar musical instruments manufactured from other material. The condition for the transfer was the preceding adequation of meaning.

7.3. General Causes and Conditions of Sense-change.

7.31. *The Three Immediate Causes of Sense-change.* After having established empirically the existence of seven main classes of sense-change, it is next necessary to ascertain if these classes are statistical types only, or if it is possible to formulate a theory through which they can be showed to form an organic system. The point of view will obviously have to be genetic, *i. e.* a consideration of the processes involved in or causing the changes. A deductive argumentation should show the theoretical possibilities, and these should agree with the results of the empirical investigation.

I think we may find such a point of view in the definition of meaning formulated in ch. 3. I have stated there that an actual meaning is adequately determined by three factors, the objective reference, the subjective apprehension and the traditional range; in other words, by its relations to the referent, the subject (speaker or hearer), and the word. I shall call them the referential, the subjective, and the verbal, relations. I further stated that if two only of these factors are stable, while the third varies, the meaning varies with the third factor. No fourth factor could be found in verbal meaning.

If this is correct, it must follow that any sense-change has as its immediate cause a change in one of the three relations mentioned.[1]) As far as I can see, this agrees with the facts.

Analogies and shortenings are, primarily, a modification of the verbal relation; substitutions, nominations, and transfers, a modification of the referential relation; permutations and adequations, a modification of the subjective relation. For details, I refer to the following chapters.

7.32. *Further Causes: External and Linguistic.* The three immediate causes of sense-change must, in their turn, be evoked by other factors, and the latter may furnish further points of view for more fundamental distinctions. To a certain extent this is the case.

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[1]) It might be more correct to say that every sense-change *consists* primarily in a shift of one of the three relations. It is partly a difference in the point of view, and I do not think that the terms I employ will lead to misunderstanding.

The instances given above have shown that substitutions are caused by external, non-linguistic factors, while all the other six classes are caused by linguistic and psychic factors. This is evidently an essential distinction from the point of view of genetic classification. The changes of a referent that are reflected in substitutions depend altogether on factors outside language and the speech activity. Language only registers the changes. The linguistic causes of change, on the other hand, are psychic processes occurring in conjunction with the speech activity, in the production or comprehension of speech.

I make a first distinction between substitutions, on the one hand, and the other six classes, on the other.

7.33. *Further Causes: Intentional and Unintentional Processes.* There is one other important distinction applicable to the whole field of sense-change: the distinction between intentional and unintentional processes (cf. 7.25 and 11.13). It must evidently make a great difference in several respects if the changes are due to the automatic action of spontaneous psychic processes, or if the speaker's will intervenes. In the unintentional changes, only the simplest psychic processes can be involved, which start spontaneously from some initial impulse and pass off unperceived. It should therefore be possible to distinguish classes of change corresponding to the types of unintentional processes which are possible. In the case of intentional changes, on the other hand, an arbitrary factor is introduced which may cut across all ordinary psychic combinations, obeying the dictates of momentary and purely individual impulses.1)

For my purposes, this is clearly an essential distinction; and it is applicable to the whole field.

We have now two points of view for changes due to linguistic causes. One is the tripartition based on the immediate causes of the shift, as

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1) "Erklären ist 'klassifizieren' und 'ordnen' und sonst kann es nichts sein. Die 'Klassifizierung' verspricht leichtere Erfolge als die 'Ordnung', die nur auf naturwissenschaftlichem Gebiete ihrer Stabilität wegen zu sicherem Urteil führt, während die Labilität des bewussten psychischen Geschehens wegen ihrer Einmaligkeit nur zu möglichem, bzw. wahrscheinlichem Urteil führt. Doch lehrt diese Unterscheidung als Grundsatz: wo Stabilität in der Beziehung *Ursache-Wirkung* zu finden ist, ist kein Bewusstsein. Wo Labilität, also die Beziehung *Grund-Folge* zu finden ist, ist Bewusstsein. Anders ausgedrückt: Um so geringer

involving a modification of the verbal, the referential or the subjective relation. The other is the bisection into intentional, and unintentional changes. Which of these two principles should be applied in the first place?

A comparison between them shows, first, that analogies and shortenings may be either intentional or unintentional (cf. chs. 9 and 10). It would, at least in this case, not be expedient to make that distinction our first point of view, since it would necessitate the splitting up of two clearly defined classes.

Taking next the changes due to a modification of the subjective relation, we find that permutations and adequations are always unintentional.

But the case is different with regard to shifts caused by a change of the referential relation. They embrace a very large number of smaller groups, ranging from the metaphors, as quoted in 7.25, to regular transfers of the simplest kind. In this mass of changes, I can see no other possible line of division than the distinction intentional/unintentional.

Consequently I make the three immediate causes of sense-change my first consideration, dividing the six classes II—VII into three groups. To one of these only I apply the distinction between intentional and unintentional.

Within the other two groups, the distinction of classes must be empirical. We find that the verbal relation may be modified through analogy or shortening, and that the subjective relation may be modified in regard to a phrase referent or to a word referent. Accordingly, each group is divided into two classes.

7.34. *The Ultimate Causes of Sense-change.* Going still further back in the causal chain, we have to ask what factors release the processes, intentional or unintentional, that lead to modifications of the three relations of meaning, and thus to sense-changes. The

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das Bewusstsein, um so geringer sind Schwankungen in der Beziehung *Grund-Folge* und viceversa". L. Jordan, Idg. Forsch. 44 (1927) 85. — "Un pur mécanisme qui se déroule automatiquement n'est sujet qu'à des dérèglements, à des déraillements, à des achoppements provenant du mauvais état de telle ou telle de ses pièces ou de l'insuffisance de l'ajustement . . . Un mécanisme qui se déroule sous une surveillance est exposé en outre aux fautes du surveillant" (Delacroix 163).

discussion is first confined to the shifts due to linguistic causes (classes II—VII), and we begin by separating the last two, permutation and adequation, from the first four.

With regard to the latter — analogy, shortening, nomination, and transfer — the ultimate causes that release the process are, generally, the functions of speech. I have stated above (5.4) that a speaker adjusts himself, and if necessary also his instrument, speech, to the purposes for which he employs it. If the actual resources of the instrument, or, more precisely, the momentary resources of the speaker, his personal language system, are not equal to the task set to it, the speaker may modify it in various ways: thus he may use words with a new meaning.[1]) All changes of these four types are effected by the speaker; the hearer's part is only to understand.

Taking the four functions of speech one by one, the speaker may employ words in a new way, (1) in order to communicate more clearly and adequately to the hearer the import of the utterance (the communicative function); (2) in order to symbolize the referents more adequately (the symbolic function); (3) in order to express his thoughts and feelings more adequately (the expressive function); or (4) in order to make a stronger effect on the hearer (the purposive function, which more or less involves the other three).

These statements are obviously applicable to the intentional changes, but also, in a slightly different way, to the unintentional ones. The apprehension of similarity underlying a shift like that of *leaf* or *bed* (7.26) presents itself spontaneously to the speaker's mind; and the similarity has, in itself, nothing to do with the functions of speech. But a speaker does not accept and make use of all associations that arise; his acceptance and employment of a spontaneous association as the basis of a fresh designation of a referent, must be assumed to be conditioned by the requirements of the speech functions. Even if individual speakers make use of unsuitable names, this does not constitute a real change of meaning (cf. 7.13); we must assume that the new name is not accepted by the speaking community or any considerable group within it, if it does not in some way meet the demands which are made on speech as an instrument for the promotion of purposes. I assume that, in the same way, analogies and possibilities of shortening that offer themselves automatically to the speaker are accepted or rejected according to their suitability for the purposes of speech.

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[1]) Cf. Stern, Psych. 129, on "Sprachnot".

We may, then, say of unintentional changes as well as of the intentional ones, that they are the result of the striving of speakers to adapt speech to the purposes for which they make use of it.

Turning now to classes VI and VII, permutation and adequation, we note an important difference. In the four classes previously discussed, the change is effected by the speaker, and "in one movement": the hearer's part is only to understand. In the last two classes the circumstances are different. The change of meaning from 'prayers' to 'little balls' is preceded by, and has to be prepared for by, repeated associations between the word *beads* and the notion of little balls used for counting prayers. It is quite possible that, during the period of preparation or transition, the speaker may intend the word to be understood in the earlier sense, while the hearer actually interprets it in the new way. This does not, as it would do in classes II—V, cause an ambiguity and a misunderstanding. Similarly with adequations; during the period of transition, a man speaking of *horns* 'musical instruments' may be thinking of them also as being made of animals' horns, while for the hearer this element of meaning has disappeared; and vice versa.

As in other unintentional changes, the association arises spontaneously, as a result of the unconscious psychic activities, and I assume that the possibility of a change is made use of by the speaking community or group only when it serves some purposes connected with the functions of speech.

This term should be taken as embracing aesthetic pleasure as well as effect, agreement with a prevailing fashion, and any other factor that may please a speaker.

With regard, finally, to substitutions, I have stated that they are due to external, non-linguistic causes. But it is undeniable that we use the same name for a new ship which is different from other ships, but also in important respects similar to them, because we want a name for it, that is to say, in order to enable speech to fulfil its symbolic and communicative functions in regard to the new referent.

I conclude, then, that most sense-changes are the result of the striving of speakers to adjust speech yet more closely to the functions which it has to perform.

One other factor of general character should be mentioned: the economic tendency (*Bequemlichkeitstrieb*). It has, apparently, more influence on the development of sounds and forms than on that of meanings, but it is not altogether without importance for the latter. It is probably responsible for some shortenings (cf. 10.185), and it does not seem unreasonable to assume that the tendency to employ words of more general import, which are often recalled more easily than a precise term, is sometimes due to the choice of the easier alternative (cf. ch. 14).

The economic tendency would seem to be sometimes in conflict with the striving to adapt speech to its functions. Our knowledge of the matter is at present very imperfect, and I have to leave it with these remarks.

We may note, too, that the ultimate causes of sense-change, the functions of speech, cannot be utilized as a basis of classification, since any one of them may lead to any one type of sense-change. Even an elliptical phrase may be clearer and more adequate, because less cumbrous, than a more complete utterance, and it is often superior as a means of expression or impression.[1])

7.35. *The General Conditions of Sense-change.* I have stated above (7.11) that the symbolic and communicative functions of speech compel the speaker to conform more or less to the ruling language system, in order to be understood by his hearers, and that this circumstance sets a limit to the possibilities of sense-change. The analysis of the process of comprehension in ch. 6 has shown that the hearer is able, by the help of context, to interpret new meanings correctly, *en fonction du schéma d'ensemble*, even if they should deviate considerably from the traditional language system. The speaker has therefore a fairly wide latitude for his tendency to variation. He may, within wide limits, shift the meaning of his words to suit his momentary purposes. But there *are* limits, and it is obviously the exigencies of symbolization and communication that play the main part in imposing them.

Closely connected with this factor is the tendency to conformity to the ruling habits of speech. As the following chapters will show, the changes of meaning are confined to a comparatively small number of types, with which we are familiar. I suggest that this fact, too, is due to an adjustment to the hearer's possibilities of comprehension; the common types are those that make no difficulties; difficult types are more rarely resorted to, and habits are thus established which, in their turn, help to mould new changes to old and familiar patterns.

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[1]) I may remark here that Paul was evidently right in making "die gewöhnliche Sprechtätigkeit" the cause of all sense-changes. Only he was not, at that time, able to show what elements and processes constitute this extremely complex phenomenon.

We have at present no detailed knowledge of these problems. For various special conditions I refer to the following chapters.

7.36. *Scheme of Classification, and Final Remarks.* The statements above concerning the general causes and conditions of sense-change have shown that the latter cannot provide any points of view for the classification, but the former enable us to group the seven main classes in a coherent scheme. As mentioned, I take for my first basis the distinction between external and linguistic causes of change. The six classes falling under the latter heading are grouped according to the nature of the primary causes of change.

This gives us the following scheme:

A. External Causes		*Class I. Substitution.*
B. Linguistic Causes:		
I. Shift of Verbal Relation	a.	*Class II. Analogy.*
	b.	*Class III. Shortening.*
II. Shift of Referential Relation	a.	*Class IV. Nomination.*
	b.	*Class V. Transfer.*
III. Shift of Subjective Relation	a.	*Class VI. Permutation.*
	b.	*Class VII. Adequation.*

The theoretical principles gained from typical instances of each class are fairly clear, although in some cases there are difficulties in formulating precise definitions. The theoretical formulation has, subsequently, to be employed in classing less typical material, and it is here that the greatest difficulties are encountered. Very often we do not know the history of words with sufficient accuracy to assign them with certainty to one or the other class. A still more serious difficulty is, however, the fact that two, or even more, different processes may give exactly the same morphological and semantic result. In these cases — it is generally a question of specific groups — we have to content ourselves with registering the alternative explanations. As far as I can see, a certain amount of such overlapping is unavoidable, but the classes should be so chosen and defined that the central groups of typical instances are not affected by the ambiguity. There are also intermediary groups, the placing of which is doubtful. This is a drawback attendant on all linguistic classification based on meanings; I need only refer to the many thorny problems of syntactical discrimination.

No systematic knowledge of a historical material is possible without distinguishing types of development. Since the development of language follows its own laws, logical or psychological points of view are relevant only in so far as they serve to explain the factual linguistic phenomena. These are the main thing. The question to be asked is always: what has happened to the word and its meaning during the course of development?

The groups to be distinguished are the groups that show in the material itself. If they correspond to definite psychic processes, or to definite logical relations between the meanings — reflecting factual relations between the referents — then these psychic processes and logical relations should be employed for purposes of definition and analysis. But if a psychic process or a logical relation — however important in itself — does not correspond to a discernible group in the linguistic material, it is useless for *classifying* purposes.[1]) Failure to recognize the latter principle has been the cause of many attempts to press the linguistic material into moulds of foreign origin, into which it does not and cannot fit.

Every scientific classification is, or should be, a method of analysis, and should, consequently, adapt itself as closely as possible to the essential characteristics of the facts analysed.

7.4. Some Relevant Problems.

7.41. *The Spread of New Meanings.* Sense-changes are normal phases of the linguistic development. It follows as a corollary that a sense-change is adequately explained if we can explain its happening, as a *normal* process, in the mind of one person. It is evident that the processes leading to a sense-change, like any normal psychic events, can (1) occur repeatedly in the mind of the originator, or (2) be imitated by other speakers to whom the new use of the word will present itself as a normal way of using speech, or (3) happen, independently of imitation, in the minds of other speakers, who find themselves confronted by the same linguistic task as the first.

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[1]) The analysis of such processes and relations may be important and interesting from *other* points of view.

The last two factors will contribute to the spread of new meanings in the speaking community. For unintentional changes, both methods seem equally possible and probable; for intentional changes, which may be due to a "singular" combination of circumstances that is not likely to be repeated, method no. 2 is perhaps more common.

The problem for the present investigation is the origin of new meanings, not their dissemination, but a few remarks may be offered on the latter question.

The question why some new meanings catch on and are universally employed, while others have only an ephemeral life is one of the most difficult problems in semasiology. We can, in general, say that the *interest* directed towards anything is the main reason for its being recollected and re-evoked.¹)

In accordance with the dynamic point of view adopted, I assume that the main factor of interest about an utterance — and its constituent words and meanings — is its *successful functioning*. It has been demonstrated with regard to children's speech that the *pleasant effect* of an utterance is the chief fixating factor, leading to recollection and repetition of the phrase.²) I think we should assume that words in ordinary speech are chosen mainly for their effect in respect of the various functions of speech, as adapted to the momentary purposes of the speaker. The rapid success and equally rapid

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¹) "It is equally clear how important for the recall of the sensory excitations in the future, and their entry into the intellectual capital of the individual, must be their success in rousing some interest. Those, on the contrary, which succeed physiologically in arriving at their normal point, but remain unconscious because they are not associated with any affectivity whatever, should be considered, if not all, at any rate for the most part, as lost for the intellect; for they would with great difficulty find occasion to be evoked before their over long "inaction" caused them to disappear also as mere mnemonic accumulations". Rignano 68.

²) Cf. Freudenthal 47 sqq., esp. 57, with quotations from other writers. Also Lindworsky, Zs. f. Psych. 92, 1923, 369, in a review of Selz: "Nur das erfolgreiche Verfahren ist gleichzeitig mit dem Ziel selbst im Bewusstsein"; and Helson, Am. J. of Psych. 37, 48 on the stamping-in effect of the pleasant consummation, with quotations from Koffka, Psych. Entwicklung; also Pos 126 sqq.

disappearance of fashionable catchwords are thus explained: as long as they are fresh and amusing, everybody "in the swim" will use them, only to drop them when people begin to tire of the incessant repetition.

The principle seems incontestable, but its application to the facts of language bristles with difficulties, and is broken through by numerous exceptions and cross-influences. For instance, in OE the common word for 'throw' is *weorpan*. Why is *weorpan*, in this use, succeeded by *cast*, and *cast* in its turn by *throw?* Cases like these, and they are innumerable, would seem to be inaccessible to our present methods, and at the present stage of knowledge.

The earlier view of language as mainly — or only — a means of communication led to the opinion that linguistic development is due essentially to the two conflicting tendencies to ease and to clearness (*Bequemlichkeitstrieb und Deutlichkeitstrieb*): the best formulation is that which is easiest to find and easiest to understand (det som lättast givet lättast förstås. E. Tegnér, Svensk Tidskrift 1874, p. 130). But it is evident that this formula altogether misses the function of speech for symbolization, expression and impression, and that it is therefore inadequate. (Cf. Noreen, Spridda Studier I 143 sqq).

The tendency to clearness is covered by the general formula that I have given, but the tendency to ease would appear to be an addition to it (cf. 7.34).

The closely related problem concerning the disappearance of meanings is equally, or more, obscure. We can discern some typical groups, but we do not know what portion of the total field is covered by these groups (Cf. Sandfeld, Sprogv. 126 sqq., Noreen, Spridda Studier II 126 sqq., Holthausen, GRM 7, 184 sqq., Carnoy 28, quoting Gilliéron. Additional instances in Gilliéron, Pathologie et Thérapeutique verbal).

7.42. *The Transmission to New Generations.* The influence of the child, or more precisely, the discontinuity of the linguistic tradition, on *phonetic* change, has been the subject of much discussion (cf. Jespersen, Language 103 sqq., especially 172 sqq., with a review of the relevant facts, and Delacroix 179 sqq. with a criticism of some current opinions).

It does not seem unreasonable to assume that the discontinuity of transmission due to the entrance of new generations into the speaking community, should be responsible also for some semantic changes. What a child hears and learns is actual speech, on the basis of which he forms his own language system. Discrepancies between the meanings intended by adult speakers, and the meanings actually apprehended by the child are often possible. Paul thinks that we have to assume a type of sense-change "die darauf beruht dass der für die ältere Generation usuellen Bedeutung von der jüngeren eine nur partiell damit übereinstimmende untergeschoben wird. Das Gebiet dieser Art des Wandels werden wir aber auf die selteneren und nicht leicht klar zu fixierenden Begriffe einzuschränken haben, da bei anderen die allmähliche Korrektur nach dem bestehenden Usus nicht ausbleiben kann" (Paul, Prinz. 86). The shift is due to the possibility of the younger generation misunderstanding a metaphorical or transferred sense as being the chief sense of the word. For instance, they may happen to hear *Fuchs*, 'fox' for the first time in the sense of 'bay horse', or *Kamel* in the sense of 'stupid man'.

Paul's instances are unfortunately chosen, since there is no tendency in standard German to make the secondary meanings of *Fuchs* and *Kamel* the main senses of these words, discarding the original meanings. The words are consequently instances of the fact that, even if children should misunderstand them, they will be corrected to conformity with the current usage, and the language system will remain unchanged.

Jespersen (Language 175) speaks of changes "that have come about with a leap, and in which it is impossible to find intermediate stages between seemingly heterogeneous meanings, as when *bead*, from meaning 'a prayer', comes to mean 'a perforated ball of glass or amber'. In these cases the change is occasioned by certain connections, where the whole sense can only be taken in one way, but the syntactical construction admits of various interpretations,[1]) so that an ambiguity at one point gives occasion for a new conception of the meaning of the word. The phrase *to count your beads* originally meant 'to count your prayers', but because the prayers were reckoned by little balls, the word *beads* came to be transferred to these objects, and lost its original sense. It seems clear that this misapprehension could not take place in the brains of those who had already associated the word with the original signification,[1]) while it was quite natural on the part of children who heard and understood the phrase as a whole,[2]) but unconsciously analysed it differently from the previous generation." (Cf. Stern, Kindersprache 307 sqq.).

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[1]) A very clumsy expression! Of course it is the whole *sense* that can be taken in two ways, but the *referent* may remain the same. The syntactical construction has nothing to do with the sense-change. I refer to the detailed analysis in 13.11, which shows clearly enough that there are intermediate stages.

Meillet has similar opinions. The earlier sense of a word, which is still predominant for an older generation, may be effaced in the apprehension of the younger generation. Thus the word *saoul*, originally meaning 'rassasié', was applied euphemistically to people who were *rassasiés de boisson* 'replete with drink'. The child on hearing such an expression would be likely to associate with it the simple notion of 'drunk', and in this way *saoul* has become the habitual word for that notion, without any euphemistic force. "Cette discontinuité de la transmission du langage ne suffirait à elle seule à rien expliquer, mais, sans elle, toutes les causes de changement auraient sans doute été impuissantes à transformer le sens des mots aussi radicalement qu'il l'a été dans un grand nombre de cas: d'une manière générale d'ailleurs, la discontinuité de la transmission est la condition première qui détermine la possibilité et les modalités de tous les changements linguistiques" (Meillet, Ling. 235—236. Similar opinions are expressed by Jaberg, Zs. f. rom. Phil. 27, 30). Meillet thus attributes to this factor a much greater importance than does Paul.

Arguments of this kind are founded on two assumptions, not always explicitly stated, and, in my opinion, both of them erroneous. The first is the assumption that in every "normal" sense-change there must be a close *logical* affinity between the primary and the secondary meanings, otherwise the change is not normally explicable, but extraordinary factors must be adduced to explain it, as, for instance, childish misunderstandings. It will be abundantly evident from the detailed analyses in the following chapters (I refer especially to the analysis of *beads* and *premises* in 13.11) that it is the *factual* connection between referents, as apprehended by speakers, that is decisive. From that point of view there is no "leap" from 'prayers' to 'little balls', without intermediate stages, but on the contrary a very intimate association between the two notions. And the intermediate stage is there too, in the form of a certain type of phrase, as obligingly pointed out by Jespersen himself. There is, then, no necessity of having recourse to misapprehensions, whether by children or by adults. With regard to the former, I may add that the sense-change in *premises* is exactly of the same type as that in *beads:* are we to assume that a legal term like *premises* is influenced by childish misunderstandings? And if not *premises*, why *beads?*

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[1]) This would involve the belief that adult people never add any new meaning to the range of the word that they have learnt — an obviously untenable assumption.

[2]) Understand the phrase as a whole — that is just what all hearers do, adult or not.

Similar observations apply to Jespersen's assumptions (Lang. 172—173) concerning phonetic associative interference (popular etymology), which he attributes to "childish confusion of unrelated words". We find that in the instances that can be verified in the NED, the supplanted form is obsolete or obsolescent, at least in the relevant meaning; that is to say, it is no longer supported by a strong linguistic tradition, but can easily work loose, and it is consequently liable to be associated with some better known group. This is not a childish peculiarity, but common to all ages (cf. 9.1 and 9.4).

Jespersen also adduces the word *fain:* "There were no connecting links between the meanings of 'glad' and 'obliged, forced', but when *fain* came to be chiefly used in combinations like *he was fain to leave the country*, it was natural for the younger generation to interpret the whole phrase as implying necessity instead of gladness" (l. c. 175). Let us take a modern instance: suppose a man gets a defective copy of a book, and returns to the bookshop in order to get a perfect copy, saying, "*I should be glad to have another copy*" — how young must the bookseller be in order to understand that this really means 'I *insist* on getting a good copy, because I have paid the full price'? Is it not highly probable that he would understand it perfectly, even if, or rather because, he has outgrown the childish ignorance of his mother tongue? Jespersen has failed to see that the *speaker* may *intend* a phrase such as that with *fain* to mean 'he was obliged', and to understand it like that is then not to misunderstand, but to understand correctly. Moreover, the connecting link is there, in the form of the expression that Jespersen quotes. It is true that there is no *logical* "middle term", but that is entirely irrelevant.

The second assumption is especially represented by Meillet, the assumption that there is no cause of sense-change strong enough to account for the constant flux of meanings if the discontinuity of tradition did not add its effect. My standpoint is quite different. I assume that the essential cause of change is the fact that the purposes for which speech is used are constantly setting new tasks to speakers, compelling them to adapt the instrument — speech — to the new task in order to cope with it successfully. Sense-change is therefore not only normal, but necessary (cf. 7.11), and the functions of speech are causa sufficiens. It is no doubt true that in not a few cases the younger generation employs words in another way than do their parents. But that is explicable as an instance of the deviations usual in group speech, and due to the special interests common to the group; moreover, it applies to a limited number of words only, referring to matters in some way connected with these interests. "The younger generation" is a term to be taken cum grano salis.[1]) It is mostly some portion of the younger generation that makes itself conspicuous by linguistic freaks, *e. g.*, the smart set, or the sporting set, or the more or less criminal set, and so on. Many of their catchwords are ephemeral, a few only are more tenacious, and end by becoming standard.

In every class of change there are numbers of instances belonging exclusively to adult speech, on which children cannot possibly have a predominant influence. Why should not the same normal development be assumed with regard to words which *might* conceivably have been influenced by children? *Saoul* is an ordinary case of the fading of a euphemism (cf. 14.56). It is obvious that any adult speaker using such a euphemism about a drunken individual will have the notion of 'drunk' in his mind, and thus will associate it to the word *saoul*.

I conclude, then, that the writers criticized here represent an antiquated opinion concerning the nature and causes of sense-change. They ask for logical affinity between the primary and secondary meanings. They have failed to adopt the modern explanation of semantic changes as due to the functions of speech, and are therefore driven to seek for causes in the wrong direction. I do not deny that misunderstandings occur, but I believe that Paul is right in restricting them to words not supported by a strong tradition, and so easily affected by associations that are not historically justified (cf. 13.12, note).

7.43. *The Part of Emotions in Sense-change.* Wundt and Falk regard emotional sense-changes as a separate class, "both psychologically and historically independent and in several respects incommensurable" (Falk 56). It will be apparent from the treatment in the following chapters that I consider the emotional changes as belonging to the same types as cognitive changes. The points of view that I have selected as my basis of classification cover changes in all kinds of mental material. Emotive changes are especially numerous among nominations (the figures of speech), and among adequations, the latter being caused by shifts in the subjective apprehension. Among the transfers there are, by definition, no emotive changes. Otherwise they may occur in any class.

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[1]) Rien de plus obscur que cette notion de "génération". Delacroix 189.

A still greater importance is ascribed to the emotions by Sperber. His theory, as stated in his latest book (*Einführung*) may be summarized as follows: In order to explain sense-change it is necessary to discover in language a source of energy, the action of which may bring about the development (l. c. 30). This energy must be considerable, for millions of speakers must resolve to use a word in a modified sense before the innovation becomes definitely established in use. All these individual decisions must tend in one direction (l. c. 32). In a large number of instances what we call emotional tone (feeling-tone) plays a decisive part. "Als psychische Energiequellen sind aber, in Gegensatz zu den blossen Vorstellungen, Gefühle jeder Art ohne Zweifel anzuerkennen" (l. c. 37). For language is not only a means of communication, it is in quite as high a degree a means of expressing emotion.[1] The latter function is more original than the former. A word with a strong feeling-tone does not behave as mere passive material but has, as it were, an active existence, often pressing itself upon the speaker from within, even if there is no objective motive for using it (l. c. 39. Cf. Stern, Litteris III 58 sqq.).

Sperber has tried to find the main cause of sense-change in another direction than Jespersen and Meillet. He assumes that speech has two functions only, expression and communication, and he does not employ the modern theory that speech is an instrument for the promotion of purposes. It is no doubt true that the sources of psychic energy are emotive, but this does not prove that emotion must involve sense-change. There are, after all, in every language a very large number of words for expressing emotions, and the necessity of forming new expressions is not inherent in the need for expression as such. Indirectly, the expressive function, as well as the other functions, is a cause of change in that it may require an adaptation of the instrument to the momentary purpose.

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[1] It seems almost as if Sperber assumed that only cognitive elements are communicated, and only emotions expressed — which is of course erroneous.

The assumption that words have — even if only metaphorically speaking — an active existence, is a return to an antiquated terminology, and should be rejected. The unsatisfactory state of the psychology of emotions in general is of course felt in the analysis of emotive sense-change. No adequate analysis is possible until psychologists have done their part of the work.

7.44. *Conservative Factors*. Falk (Betydn. 54—55) states that the strongest conservative influence with regard to meanings is the association of a word with its cognates, when these retain their original meanings (cf. Stöcklein 8).

Meillet (Ling. 236—237) thinks that when a word is no longer felt as belonging to its etymological derivational group the way is open for its meaning to change indefinitely. Thus *vif* is no longer felt as belonging to *vivre* and *vie*, and therefore the meaning 'mobile, animé' may come to dominate.

It seems to me that it would be difficult to prove that the connection with the cognate group was severed before the change set in. It is much more likely that the severance is the *result* of the sense-change. Sometimes a phonetic change may give the word a form diverging from the norm of the group, and it is possible that this fact may facilitate a sense-change. As far as I know it has not yet been proved that, *ceteris paribus*, formally isolated words are really subject to change to a greater extent than others, which retain the characteristic form of their group. Difference of form is no obstacle to group-formation (cf. 9.1). And there are innumerable instances of words retaining their form, but separating semantically from their group. I shall only mention the typical group *orare* — *oratio* — *orator*, where the phonetic similarity has not prevented the verb from going its own way (cf. also Nyrop's criticism, IV 75).

I am inclined to believe that the preservation of meanings as well as their change is due to the same general cause: the functions of speech. I have already pointed out that the communicative and symbolic functions exercise a conservative influence in maintaining the stability of meanings. In order to be comprehended as swiftly and accurately as possible it is necessary to keep within the traditional range of the words, that is to say, to use them in their established meanings. The strength of this factor is shown by the reaction of words on thought, as described in 5.53, and by the importance of words for the formation of general notions and categories.

As a second conservative factor, I regard the frequency of words in a specific meaning; in other words, the strength of the linguistic tradition. It is well known that the most common words of a language retain most tenaciously old and otherwise discarded forms and inflections. It is reasonable to assume that a strong tradition has similar effects on meanings. Note, however, that the retention of one or more old meanings is no obstacle to the acquisition of new ones: frequency is only a conservative factor for already established meanings.

7.45. *The Regularity of Sense-change. Semantic Laws.* It is not much use quoting the contradictory opinions of philologists concerning the regularity of sense-change and the possibilities of formulating semantic laws, more or less corresponding to sound-laws. Most of these opinions are pessimistic. I shall give instead an instance of what may be accomplished in favourable circumstances.

The only method of ascertaining definitely the existence of regularities in sense-change is to study empirically and in detail, suitable groups of synonyms, and to find out to what degree their development runs in parallel lines and is conditioned by identical factors. Such attempts have been made more than once, but with inadequate material. It has been found that there *are* parallel developments, but no exhaustive account of any group of synonyms has, as far as I know, been attempted. At the present moment, I have complete material for one group only, in English, and I have given an account of it in a paper some years ago. Since most readers will not be able to see the paper I shall here summarize the main points (Stern, Betydelselag. See also Stern, Swift 6 sqq., 24 sqq., 208 sqq., 262 sqq.).

The change to be investigated is that from 'rapidly' to 'immediately' occurring in a number of English adverbs. The change may be illustrated by the following quotations:

I. *He wrote quickly.*
II. *When the king saw him, he quickly rode up to him.*
III. *Quickly afterwards he carried it off.*

This is a typical permutation (ch. 13), where the change takes place in phrases permitting a double interpretation (equivocation, cf. 13.12). In I, the verb is imperfective, and the adverb means 'rapidly' (swiftness in space). In III, the verb is apprehended as punctual (perfective), and the adverb means 'immediately' (swiftness in time), no attention being paid to the circumstance that the act must necessarily take some time to perform.

In II, the meaning of the verb may, according to circumstances and context, be apprehended as imperfective, denoting the progress of the action, or as perfective, denoting the action as a unit. In the former case, the adverb means 'rapidly', as in I. In the latter case, it means 'immediately', as in III. Phrases of type II occur especially when to an otherwise imperfective verb, is added a word stating the purpose or end of the action, so that it is limited in time. If a person rides rapidly up to another, the action is completed within a short space of time. The equivocal instances thus do not represent a separate shade of meaning, but the adverb may be interpreted either in one way or the other, either as I or as III.

In some of the adverbs in question, which are well instanced in the texts, the development can be traced in detail. In other cases the three types appear almost simultaneously, or even in another order than that indicated above. It might then be assumed, either that the two meanings 'rapidly' and 'immediately' have arisen in completely different ways, and that the equivocal meaning is the result of a contamination between I and III; or that the development has proceeded from 'immediately' to 'rapidly'.

The former case, independent development of the two meanings, sometimes occurs, as for instance in *fast* (cf. Stern, Swift 93—94), which is therefore left aside in the following discussion, but as far as I have been able to see, not in any other of the adverbs mentioned here. It is of course necessary to investigate the whole history of each word in order to ascertain how the sense 'immediately' has arisen.

With regard to the other possibility, a development from 'immediately' to 'rapidly', I have shown in Swift (218—219) that it is not probable, for various reasons. Sandegren (106) has arrived at the same result for German. As mentioned, it is evident that if a person rides rapidly up to another, the action is soon completed; but we cannot reverse the argument and say that if a person soon rides up to another, then the action is also rapidly performed. There is not a single instance in English of a development 'immediately' > 'rapidly', and on the whole the meaning 'immediately' appears to have rather limited possibilities of development. I know of only two developments from 'immediately', not counting the change from 'immediately' to 'soon', which should be explained as a loss of intensity. One is the peculiar development of *anon*, in reply to a call, 'presently, coming at once', to 'at your service' > 'what did you say', a development which is obviously conditioned by a peculiar context in which the phrase is used, not by the meaning of the word in itself. The other instance is the development of the sense 'early' in *soon*. It has probably taken place in the comparative *sooner*, and afterwards been analogically transferred to the positive. Cf. a similar development in *rather* (Stern, Swift 34 sqq. and 9.24 below).

We may therefore, I think, safely assume that when the two meanings 'rapidly' and 'immediately' occur in an English adverb, the former of them is the origin of the latter, in the manner described for *quickly*.¹)

The reason why the two senses are found in another chronological order than the one I have indicated, is especially the scantiness of the OE and ME texts. In OE some dialects are not at all represented by texts, and others only fragmentarily; the same is the case for early ME. It is only about 1300 that there is a satisfactory supply of texts to illustrate the state of the language. The fact is reflected in the frequent occurrence of the date 1300 in the lists below. In other cases, a meaning may have arisen in colloquial language, which is scarcely represented in our texts. Also, in some cases, the words are comparatively rare. In these circumstances, it is evident that a meaning may be much older than the earliest preserved record, and the latter should therefore be regarded as a terminus ad quem. We

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¹) The NED distinguishes the meanings of *quickly* in another way. Sense II is not given separately, which is only natural, since equivocal meanings are avoided by lexicographers. Sense III is divided into two, (1) denoting that the whole action or process is begun and ended within a comparatively short space of time, and (2) denoting that there is little or no interval between a given point in time and the doing of an act or the happening of an event. Logically, the two senses are easy to distinguish, but in actual fact there are very few cases which cannot be interpreted either way. Nor can they be distinguished chronologically and genetically. I have therefore not separated them here. Cf. Stern, Swift 25.

have to be satisfied if the chronology of the well evidenced words can be traced with certainty, and if the less frequent words do not present divergences that contradict the assumptions made.

The adverbs in question show the following earliest known instances.[1] The OE period is taken as a unit, since the literature is too scanty for the circumstance that a word is found only in late OE to have much importance.

	Sense I 'Rapidly'	Sense II 'Rapidly/immediately'	Sense III 'Immediately'
Hrædlice	OE	OE	OE
Hraþe (*Raþe*)	OE	OE	OE
Ardlice	OE	OE	OE
Lungre.................	OE	OE	OE
Ofstlice	OE	OE	OE
Sneome	OE	OE	OE
Swiþe	OE	OE	1175
Swiftly.................	OE	OE	1200
Caflice	OE	OE	1370
Swift	OE	1360	1300? 1400?
Georne	OE	1290	1300
Hiȝendliche...........	1200	1200	1200
Quickly	1200	1200	1200
Smartly	1290	1300	1300
Snelle	1300	1275	1300
Quick	1300	1290	1300
Belife[2]	1200	1200	1200
Nimbly	1430	1470	1400
Rapely	1225	1300	1325
Skete	1300	1300	1200
Tite	1300	1350	1300
Wight	1300	1360	14th cent.
Wightly	1350	1350	1300

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[1] I cannot reprint here all the material on which my dates and conclusions are founded; I have to refer the reader to Stern, Swift 209 sqq., and Stern, Betydelselag.

[2] With regard to *belife*, it is probably due to chance that no earlier instance of sense I is known. There are instances in Layamon A and Ormulum which appear to represent the intermediate stage between 'vigorously, eagerly' and 'rapidly'. The existence of the latter sense at least about 1200 may therefore be safely assumed.

I have no certain cases of the development 'rapidly' > 'immediately' except in the words enumerated above. We may therefore state that this development has, in all cases, taken place before 1400.

We have next to give a list of the adverbs meaning 'rapidly' but *not* 'immediately'. I leave out words in which the sense of speed is mixed with other elements of meaning which may have influenced the development. See the lists in Stern, Swift 6, 8, and 209. The dates, as before, give the earliest known instances.

Speedily	1300	*Expeditiously*	1603
Speedly	1300	*Postingly*	1636
Speedfully	1398	*Speedingly*	1647
Rashly	1547	*Velociously*	1680
Roundly	1548	*Rapidly*	1727
Post	1549	*Postwise*	1734
Amain	1563	*Hurryingly*	1748
Post-haste	1593	*Hurriedly*	1816
Fleetly	1598	*Fleetingly*	1883

We find that, with three exceptions, adverbs meaning 'rapidly' but *not* 'immediately' have acquired the former sense only after 1400.

If such a chronological distribution of instances had been ascertained with regard to a phonetic change, we should at once attempt to explain the over-lapping words as due to some collateral influence.

The three adverbs are derived from the noun *speed*, OE. *spēd*, originally signifying 'abundance, prosperity, success'. The meaning of a derivation is naturally influenced by that of the stem word, as long as they are felt to belong together (cf. 9.25). The adverbs may have preserved elements of their original meaning, which prevented a diverging development. Another explanation might be that of insufficient frequency. The change could be effected in certain contexts only, and on condition that these contexts occurred with sufficient frequency. That was perhaps not the case here.

Note further that the words which are found with the sense 'immedi-

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I repeat that the dates are to be taken as termini ante quos. Some of the words are comparatively rare. I have only nine instances in all of *swift*, and only eight of *nimbly*. In such circumstances it may be a mere chance that the various meanings are not found earlier.

With regard to loan-words we have to reckon with the possibility of the sense 'immediately' arising in the foreign language, not in England. This might be possible for *tite*.

ately' only in the 14th century, are all comparatively rare. It is, I think, not improbable that all developments 'rapidly' > 'immediately' happened before 1300. The date 1300 for *speedly* and *speedily* is of course also a terminus ante quem, but it is perhaps not altogether impossible that these words did not acquire the sense 'rapidly' until the tendency to change had disappeared, and consequently fall outside the time limit. But this explanation is more uncertain.

We have found that English adverbs with the sense 'rapidly' are divided into two chronological groups, one in which the sense is earlier than 1300 (or 1400) and in which the sense 'immediately' nearly always arises out of it; another in which the sense 'rapidly' is later than the date mentioned, where no such development occurs. It is further demonstrable that the development always takes place in definite contexts: when the adverb is employed to qualify verbs which may be apprehended as imperfective or as perfective (punctual). We may therefore formulate the following semantic law:

English adverbs which have acquired the sense 'rapidly' before 1300, always develop the sense 'immediately'. This happens when the adverb is used to qualify a verb, the action of which may be apprehended as either imperfective or perfective, and when the meaning of the adverb consequently is equivocal: 'rapidly/immediately'. Exceptions are due to the influence of special factors.

But when the sense 'rapidly' is acquired later than 1300, no such development takes place. There is no exception to this rule.

This "law" has the form of a sound-law: it gives the circumstances of the change and a chronological limit.

We ask, next, what may be the reasons for the cessation of the development. It cannot have been that the conditions favouring it ceased to exist, for we may still say, *he went rapidly out of the room;* but this has not caused a change of meaning for *rapidly.*

It seems that the tendency itself disappeared. The reason is obscure. The changes began at a period when OE, without any considerable influence from other languages, was following its own line of development; they continued during the periods of Scandinavian and French influence, and ceased as the importation of French and Latin linguistic material was at its height. We cannot demonstrate any connection between the general linguistic and cultural development, and the sense-change in question.

We might perhaps point to the fact that the demand for means of expressing the notion of 'immediately' must have been satisfied by all these words. It is true that some of them soon disappeared but there were many others denoting the same thing, and the notion 'immediately' has not so many different characteristics that it would require a great number of synonyms to be adequately represented. The tendency can therefore cease without detriment. We find that the tendency was effective as long as there was material for it to work upon. About 1300 the change had been accomplished in all the relevant adverbs then existing. The *speed*-derivations were next in time, making their appearance probably during the 13th century. Perhaps the tendency then had weakened or completely disappeared, but even if that was not the case, these words might still have escaped it owing to their low frequency, or because their meaning was blended with other elements. After this, a considerable time elapsed before any fresh word acquired the sense 'rapidly', and the tendency could then have completely disappeared.

As the changes began before our earliest literary records, we know still less of their first appearance.

When a number of these adverbs had acquired both meanings, analogical influence on the remaining adverbs might be assumed (see on this point 9.34). But there are several arguments against the assumption. Analogical influence ought to work with equal strength in both directions, so that words meaning 'immediately' receive the sense 'rapidly', but there is no trace of such a development. And why has not the analogical influence continued during the Modern English period, with regard to the adverbs in my second list?

It does not seem improbable that an investigation of a large number of sense-changes falling within one sphere of experience would show that tendencies like the one just described may affect several groups of synonyms. It ought then to be possible to ascertain with greater precision both the extent of the tendency and its chronological limits, and also to ascertain if it has any connection with general cultural factors. At any rate, we should gain an important contribution to the history of the language. But laws like these cannot be formulated for nominations, or substitutions, and probably not for analogies and shortenings. Moreover, I think it is rare for any large group of synonyms to be so untouched by substitutions as are the *swift*-words. It would probably be more difficult to formulate similar "laws" for other groups.

CHAPTER VIII

CLASS I. SUBSTITUTION

8.1. Theoretical Discussion. Substitutions are sense-changes due to external, non-linguistic causes.[1])

The process of change may be analysed as follows. *Horns*, real animals' horns, were used for the purpose of producing certain sounds and signals. When they were so used, the main thing about them was their function; and the fact that they were manufactured from animals' horns was not attended to. The notion of 'musical instrument' thus became the predominant element of meaning. This is a process of adequation, as analysed in 14.11 (cf. also the diagram given there). When people began to manufacture, from other material than horn, instruments of similar shape, and capable of producing similar sounds, in other words, instruments with a certain function, these were, as a matter of course, apprehended as belonging to the category of horns, and were consequently so named. This is the substitution. It is followed by a fresh adequation (cf. 14.14).

The main condition for substitutions thus lies in the incessant modification to which all objects, qualities, and actions are exposed, which are in any way connected with the momentary status of civilization, material, intellectual, or moral. A second condition is our method of arranging all items of experience into categories, each of which generally has a name of its own.

The causes of substitution lie in the fact that referents change and that we require new names for them; these we get, in the present case, by placing the referent in some known category, denoting it by the same name.

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[1]) The term substitution is a part translation of Wellander's term *Bedeutungsunterschiebung* (Wellander, Studien I 55 sqq., 70 sqq.) The name is justified by regarding the change as caused by the substitution of a new referent. Collinson, MLR 20, 1925, 102, suggests the term *subreption*. Wundt discusses these shifts under the heading Historische Interpretation (II 477 sqq.). See further Nyrop IV 84 sqq., Marty, Unt. 543 sqq., Stöcklein 34 sqq., Hatzfeld, Leitfaden 81 sqq., and the other works quoted by these writers.

Substitutions are sometimes difficult to distinguish from regular transfers (ch. 12). The essential difference may be illustrated by comparing the instance above, *horn* 'musical instrument', with a transfer, as for instance *saddle* 'rider's seat' applied to a mountain ridge of a certain — saddle-like — shape. In the former case, the metal or ivory horns — the new referents — and the old horn "of horn" form *one* category, and are therefore naturally given the same name. In the latter case, *saddle* 'rider's seat', and *saddle* 'mountain ridge' of a certain shape, do *not* form a category. The distinction of substitutions and adequations is discussed in 14.14. I refer, also, to the alternation of substitutions and adequations described in 14.11.

Substitution is an extremely frequent form of semantic change. There are few groups of synonymous or cognate words which have not been more or less affected by it. The stock of meanings in a language reflects in a thousand ways the momentary state of the material, intellectual and moral civilization of the speaking community. The constant progress and modification of all forms of human life and thought re-act on the meanings. In the course of time, such modifications of meaning amount to considerable sense-changes, even if the change is gradual and at any one moment hardly perceptible.

Although substitutions are very frequent there appears to be some words that are seldom touched by them. Wellander (Studien I 100) assumes that substitutions occur mostly with concrete referents, but this is no doubt a mistake. The important point is not the degree of concretion or abstraction, but whether the referent is in any way, directly or indirectly, exposed to the action of cultural evolution. Concrete referents like parts of the body, or the actions denoted by verbs like *run, go, eat,* or by adjectives like *hard, soft, big, little,* etc., have remained practically untouched by substitution. The same is the case with notions like *light, darkness, day, night, sleep, dream,* and many others.

For many philologists substitutions are the most interesting kind of sense-change because they help to throw light on the facts of human history. The development of meaning has followed the development of the referent, and if we can trace the former we can perhaps, at least in some cases, draw conclusions with regard to the latter, and vice versa. *Wörter und Sachen, ohne Sachforschung keine Wortforschung,* are well-known formulæ. The matter is familiar to every philologist, and since it falls outside the scope of my work, I may leave it with this remark.

From the linguistic and psychological point of view which I apply, the substitutions are not much differentiated, and they are of no very great interest for my purposes. I shall content myself with a brief discussion, referring for further details to the writers quoted above.

We may, I think, distinguish three main types of substitution, according to the origin of the change. The origin may be a factual change of the referent, or a change in our knowledge of the referent, or a change in our emotive attitude towards the referent.

8.2. Factual Change of the Referent. In this type of substitution the referent is subjected to a factual change, due to progress or modifications of technique, habits, etc. The referent may be concrete or abstract, and the change may be gradual or sudden.

When a steam-engine was first installed on board a *ship* to function as an auxiliary propelling power, the ship itself was not otherwise changed: it looked as usual, with the exception of a narrow funnel. As the machine gradually superseded the sails, the appearance and construction of the ship slowly changed. At present a sailing ship and a steam-ship are generally quite different in appearance, but that is the result of a gradual development, during which there has never been any reason for not placing the new referent in the category of ships.

Similar slow changes, due to technical progress, have affected an enormous number of objects, as *house, carriage, machine, motor-car, tramway, telephone, telegraph, war, trade,* and so on. The corresponding adjectives and verbs have been similarly affected. The word *artillery* originally signified 'warlike munitions, implements of war; ammunition in the wide sense', and more especially 'engines for discharging missiles, including catapults, slings, arbalests, bows, etc.': *Ionathan gaue his artillery vnto his ladde, and said vnto him, Goe, cary them to the citie* (1 Sam. XX 40. 1611). The invention of gunpowder led to the construction of engines of war of a new kind; nevertheless, the *function* being the same, the new machines were apprehended as belonging to the same category, and they were consequently denoted by the old name (cf. NED, Hatzfeld, Leitfaden 83, and Nyrop IV 84). The *booking-office* has its name from the practice of booking one's name for a coach or other conveyance. After the introduction of railways and steamboats, the system of tickets was adopted. The place where they were sold was also called a booking-office, because at a booking-office one paid for a journey in some conveyance, and that is the main thing from the travellers' point of view. *Mews* is the plural of *mew* 'a cage for hawks'. The Royal Mews were at Charing Cross in London; the name was apprehended as attached to the place and was retained for the Royal stables, which were later built on the same site (earliest quotation from 1529). After adequation the name was transferred to other similar establishments, and the present meaning is 'a set of stabling grouped round an open space, yard, or alley, and serving for the accommodation of carriage-horses and carriages' (earliest instance in the NED from 1631).

In the instances *artillery* and *booking-office*, as in that of *horn*, a process of adequation is a necessary preliminary to the substitution. A booking-office is, as the name says, a place where one *books* a passage with a conveyance; if that element of meaning had remained predominant, or at least prominent, the name could obviously not have been applied to a place where tickets are sold, but no booking of names done. The term must first, through adequation, have come to be apprehended as denoting a place where one pays for a passage. Similarly, *artillery* must have been apprehended as meaning, primarily, 'engines of war used to throw missiles' (not necessarily by mechanical power) before the name could be used for guns charged with powder.

It seems likely that we should assume a similar alternation of adequation and substitution in many other instances that are quoted in the textbooks; *e. g.* in the development of F. *plume*, G. *Feder* 'quill' > 'pen' (Stöcklein 34); the historical facts with regard to this word, are, however, not quite clear.

In other cases, no preliminary adequation is necessary, and the change is sudden. *Deutschland* is not the same thing after 1871, as before that year; the treaty of Versailles and the republican constitution have changed it again (cf. Wellander, Studien I 55).¹)

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¹) Wellander (Studien I 148) regards it as a case of Namengebung (intentional naming) when the German authorities fixed the hours between which *night* and *day* are to be reckoned for postal and other administrative purposes. But this is a clear case of substitution, since it is the *referent* that is arbitrarily regulated, while the name remains. On the other hand, when a totally new referent is created, as in the case of *Mark* (l. c. 151), and then named with an old word, that is a case of intentional naming.

Here belong instances where abstract notions are defined anew, more or less differently, but the name is retained. A case in point is the definition of *meaning* in this book. (Cf. K. O. Erdmann 34).

The word *cook* (late Latin *cocus* < *coquus*) 'one whose occupation is the preparation of food for the table' originally was masculine only. It is recorded in English from A. D. 1000. Applied to a woman it is not found till 1535 (NED). We may perhaps assume that this is a substitution, conditioned by a previous adequation of the word, in which the notion of the masculine gender receded or totally disappeared.

A *boy* is, according to the NED, "a male child below the age of puberty. But commonly applied to all lads still at school, as such; and parents or sisters often continue to speak of their grown-up sons or brothers as 'the boys' ". Is this international practice a case of substitution? *Girl* is similarly used.

In this connection I may mention the change of meaning that occurs in christian names in the lapse of time. When *Charles Smith,* the baby, is baptized, his name has not the same meaning as fifty years later, when he may be an admiral, or a well-known author, or an important business man. The change is due to the change of the referent and his various activities, and must consequently be classed here.

The modification of habits is reflected in the change of meaning of the names of the daily meals in the Romance languages, as shown in Herzog's dissertation on the subject. In the Middle Ages, in France, there were two chief meals, *disner* (more rarely called *desjeuner*), about 9 a. m., and *souper,* rarely *cène,* late in the afternoon. The *disner* was gradually taken later, and an early meal was called *desjeuner.* During the reign of Francis I, *dîner* was eaten between 9 and 10, during that of Henry IV between 11 and 12, and in the 17th century about noon. Madame de Sévigné writes in 1676: *elle aimerait bien à vivre réglément et à dîner à midi comme les autres.* In 1782 a writer states: *à trois heures on voit peu de monde dans les rues, parce que chacun dîne.* At present, dinner is often eaten at eight or nine p. m., while the supper may be a light meal after the theatre, and the déjeuner has been changed into a midday meal. Herzog adds that this development is often limited to the cities, while in country districts an earlier arrangement is still preserved. The NED gives the following definition of *dinner*: "The chief meal of the day, eaten originally, and still by the majority of people, about the middle of the day (cf. Germ. *Mittagessen*), but now, by the professional and fashionable classes, usually in the evening."

The gradual modification of political conditions is reflected in the different notions attached to the word *king*, if we compare, for instance, the period of William the Conqueror with that of George V.

The meanings of ethical, aesthetic, religious, philosophical and other scientific terms are in a constant flux (cf. Paul, Prinz. 105). I I shall only quote the words *religion*, *God*, *sacrifice*, *holy*, and so on, which, together with their equivalents in other languages, have had their meanings greatly modified by the introduction of Christianity. Some of these changes, or at least some phases of the changes, should perhaps be placed in 8.4; cf. Schreuder 126.

8.3. Change in Knowledge of the Referent. The second type of substitutions includes instances where the referent in reality remains unchanged, but our knowledge of it changes.

The progress of scientific knowledge has led to new notions being attached to many referents, and consequently to new meanings for many words, as *electricity*, *solar system*, *atom*, *the South Pole*, *the Stone Age*, *Ancient Mesopotamia*, to mention only a few.

An instance of a somewhat different type is the word *creek*. It is originally 'a narrow recess or inlet in the coast-line of the sea, or the tidal estuary of a river; an armlet of the sea which runs inland in a comparatively narrow channel and offers facilities for harbouring and unloading smaller ships;' and, as an occasional extension of this sense, 'an inlet or short arm of a river, such as runs up into the widened mouth of a ditch or small stream, or fills any short ravine or cutting that joins the river'. In the U. S. and British Columbia we find in addition the following sense, 'a branch of a main river, a tributary river; a rivulet, brook, small stream, or run'. The NED assumes that "probably the name was originally given by the explorers of a river to the various inlets or arms observed to run out of it, and of which only the mouths were seen in passing; when at a later period these 'creeks' were explored, they were often found to be tributaries of great length; but they retained the designation originally given, and 'creek' received an application entirely unknown in Great Britain". If this explanation is correct, we have here an instance of substitution due to increased knowledge of the referent.

8.4. Change of Attitude to the Referent. We have, finally, the substitutions that are due to a change of attitude to the referent, a change of attitude that, in its turn, is due to non-linguistic, external causes.

A case in point are political catchwords. *White Rose or Red? Home Rule, Corn Laws, Repeal, Women's Suffrage,* have all, in their time, been fraught with emotion for many speakers, but at present they are probably less explosive. "There was a time during the Indian Mutiny when the name of Tantia Topi would kindle any Englishman into a blind rage. But who cares for Tantia Topi now?" (Newspaper).

When a thing falls into disrepute owing to a change in the general attitude towards it, the meanings of the relevant words suffer accordingly. This happened with the philosophical system of the Middle Ages, *scholasticism,* and we find the word signifying: 'servile adherence to the methods and teaching of the schools; narrow or unenlightened insistence on traditional doctrines and forms of exposition': *He found his country tied up in formalism, scholasticism, and tradition, and by strokes as remarkable for boldness as strength he set it free* (1861). The adjectives *scholastic* and *scholastical* have had to submit to the same fate: *Sidney*'s *Arcadia is not romantic but scholastic, not poetry, but casuistry* (1820). *A proper distinction, by the whiche you may escape the scholasticall snares and mases* (1531). Cf. the remarks on *dunce* (14.84).

CHAPTER IX

CLASS II. SENSE-CHANGES DUE TO ANALOGY

9.1. Group Formation.

9.11. *Preliminary Remarks.* Analogy is the traditional name for a very frequent linguistic phenomenon, in Germany also called *Systemzwang* (systematizing or levelling tendency). Philologists writing on analogy[1]) have mostly concentrated on the morphological and phonological aspects of the question, leaving semantic problems aside. To some degree they are inseparable, but I shall as far as possible limit my discussion to the analogical change of meanings.

The linguistic material for the present chapter is very unsatisfactory. Analogy is often assumed, but the assumption is seldom really proved. In some cases it is of course possible to draw a more or less certain conclusion on the basis of a comparatively superficial knowledge, but in other cases the only real proof would be a historical study of the word in question, showing that the relevant meaning cannot be explained as originating from any other known meaning of the same word, but must be due to outside influence. There is very little of this kind of material available.

Analogy is primarily unintentional, but any one of the formations described here may also be produced intentionally.

Analogy is defined by Høffding (Analogi 34) as "identity of relations between separate objects, not identity of the single characteristics". We shall find that the effect of the two first groups of analogical change described below, combinative analogy and correlative analogy, is to bring about such an identity of relations within semantic groups. With regard to the third group, phonetic associative interference, it can be classed as analogy only if we take the definition in a wide sense. Associative interference leads to the formation of semantic groups, and in so far as speakers instinctively try to get isolated words into one group or another, that is also a kind of analogy.

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[1]) Thumb and Marbe, Exp. Unt. 1 sqq. give a useful summary of the literature on analogy; see also B. I. Wheeler, Analogy, Misteli, Zs. f. Völkerpsych. 11 (1880) 443, Paul, Prinz. 35, 106 sqq., 189 sqq; R. M. Meyer, Zs. f. vgl. Sprachf. 43, 352 sqq., Pos 122 sqq.

The problem of the semantic groups just mentioned is of essential importance for the matter in hand, and these groups have generally been regarded as the cause of analogical change. It will be useful to begin the discussion with an investigation into the nature and extent of group formation, and the part played by it in language. The current opinion is expressed most precisely by Paul, and I shall first give a short summary of his views. Wundt's explanations, although formulated in different terms, are not essentially different from Paul's (cf. Wundt I 443 sqq.).

9.12. *Paul's Theory of Analogy.* Paul (Prinz. 106 sqq.) assumes that words attract each other in our mind, thus forming larger or smaller groups of various kinds. Words of identical or similar basic meaning form *stoffliche Gruppen*, material groups. For instance, the case forms of a noun constitute a material group. Within this group the cases of the singular as contrasted to those of the plural constitute a smaller material group; and so on. Words of cognate meaning form a larger material group with laxer internal cohesion. The similarity of meaning is generally accompanied by similarity of form, usually conditioned by etymological affinity, as *führen-Führer-Führung*. There are also material groups composed of totally unrelated words: *boy-girl*, *old-new*, and so on.[1])

Formale Gruppen, formal groups, are constituted by words with similar or identical relational meaning, but varying basic meaning. Thus all nomina actionis, all comparatives, all nominatives, all first persons of verbs, and so on, constitute formal groups.

Not only single words cohere in this way into groups, but also analogous proportions between words. The basis for the formation of *Proportionengruppen*, proportional groups, is the crossing of material and formal groups, exemplified by series like *Tag — Tages — Tage*, *Arm — Armes — Arme; Führen — Führer — Führung*, *Erziehen — Erzieher — Erziehung*, and so on.

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[1]) Osthoff, Suppletivwesen 3 sqq., distinguishes *unechte stoffliche Gruppen* constituted by forms of different stems as *bonus — melior — optimus*, *fero — tuli — latum*, and *echte stoffliche Gruppen*, in which all the forms are of one stem. Cf. Bally I 39 sqq.

The action of these groups "besteht dabei gewissermassen in der Auflösung einer Proportionengleichung, indem nach dem Muster von schon geläufig gewordenen analogen Proportionen zu einem gleichfalls geläufigen Worte ein zweites Proportionenglied frei geschaffen wird. Diesen Vorgang nennen wir Analogiebildung" (l. c. 110). Paul insists on the point that an analogical formation is equivalent to the solution of a proportional equation, so that at least three members must be known. "Es muss jedes mit dem andern irgendwie vergleichbar sein, d. h. in diesem Falle, es muss mit dem einen im stofflichen, mit dem andern im formalen Elemente eine Uebereinstimmung zeigen. So lässt sich z. B. im Lat. eine Gleichung ansetzen *animus: animi* = *senatus: x*, aber nicht *animus: animi* = *mensa: x*. Es kann daher ein Wort in seiner Flexion von anderen nur dann analogische Beeinflussung erfahren, wenn es mit diesen in der Bildung einer oder mehrerer Formen übereinstimmt. Es kommt allerdings zuweilen eine Beeinflussung ohne solche Uebereinstimmung vor, die man dann aber nicht mit Recht als Analogiebildung bezeichnet. Es kann eine Flexionsendung wegen ihrer besonderen Häufigkeit als die eigentliche Normalendung für eine Flexionsform empfunden werden. Dann überträgt sie sich wohl auf andere Wörter auch ohne die Unterstützung gleichgebildeter Wörter" (Prinz. 116—117).

Paul's mathematical explanation is decisively, and I think rightly, rejected by Delacroix: "il faut distinguer l'analogie du raisonnement qui conclut en vertu d'une ressemblance entre les objets sur lesquels on raisonne. L'analogie linguistique ne consiste aucunement à calculer la quatrième proportionnelle, à déterminer un terme par la connaissance de l'un des couples et d'un des termes du second; pas plus qu'à s'élever par l'observation des rapports à la raison des choses, ou à lier entre elles des ressemblances extérieures dont on ne connaît point la raison. Il n'y a pas de raisonnement dans l'analogie linguistique; tout au plus l'action de l'esprit qui continue spontanément un mouvement antérieur" (Delacroix 250. Cf. also Freudenthal 99 sqq.)

I believe that Paul is on the right track in speaking of "die Vorstellung einer Allgemeingültigkeit der Muster, welche dem Einzelnen das Gefühl der Berechtigung zu eigenen Zusammenfügungen gibt" (l. c. 111), and I hope to show that the process mentioned in the last lines of the quotation from Prinz. 117, which Paul refuses to regard as a real analogy, is of essential importance.

It is a weak point in Paul's theory that he has adduced no independent evidence in support of his assumptions concerning group formation. The first thing we have to do is to find such evidence, and to see if group formation really extends as far as Paul asserts. (On the theory of group formation, see Cassirer, Phil. I 261 sqq.)

9.13. *Basic* (*Material*) *Groups.* As the material groups are groups of words with identical or correlated basic meaning, I shall employ the term *basic groups.* Paul's formal groups will be called *relational groups,* since they consist of words with identical relational meaning.¹)

A *flexional group* is a basic group constituted by the various flexional forms of *one* word. When discussing the semantic problems we have to remember that each flexional form is generally capable of expressing more than one relation — for instance, a genitive form may express possessive, objective, or subjective genitive — and that consequently the *semantic* group, the collocation of a basic meaning plus all the relational meanings with which it may normally be combined, is much larger than the corresponding morphological group. The six tense forms of a Latin noun are capable of expressing a much larger number of relations.

The actual existence of flexional groups may be taken for granted. The cohesion within a flexional group is generally fairly strong, and it is exceptional for one member of it to separate entirely from the group with regard to semantic development.

A *derivational group* is a basic group consisting of all the derivations of one stem that are still apprehended by linguistic feeling as belonging together.

The coherence among derivations of one stem is not so strong as that between the flexional forms of one word (Paul, Prinz. 195, 205). One word may pass through a phonetic or semantic development which separates it from the cognate words. Thus, no Englishman without etymological knowledge apprehends *to singe* as a derivation of *to sing. Different* and *indifferent* have to some extent drifted apart in meaning, but the phonetic similarity will perhaps keep them together; similarly *invasion* and *evasion.* (Cf. Bally I 33, 39, 143 II 21, 22, Carnoy 139, Hatzfeld, Bedeutungsverschiebung 34, Stöcklein 8).

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¹) *Groups* are taken to mean only groups that are apprehended as such by linguistic feeling.

The existence of derivational groups is also certain. We must only take care to remember that single members of an etymological group may separate from it, so that etymological affinity is not sufficient to establish an actual affinity, perceptible to linguistic feeling.

A *correlative group* is a basic group consisting of words the meanings of which are in some way correlated, and therefore apprehended by linguistic feeling as belonging together. Such groups are *boy-girl, new-old, go-come, up-down, summer-winter,* and so on. (Cf. Wundt I 448).

Linguistic evidence for the existence of such groups is found in the well-known fact that words are not seldom influenced in form, gender, etc., by other words of opposite or otherwise correlated meaning. Thus, OE *mycel* 'large' probably has its vowel from *lȳtel* 'small', the original stem vowel being *-i-*. *Female* has been remodelled from F. *femelle* under the influence of *male.* Late Latin *grevis* for *gravis* is due to *levis;* F. *rendre* from L. *reddere,* to *prendre;* the masculine gender of F. *été* 'summer', from L. *aestatem,* fem., is due to the masculine gender of *hiver, printemps, automne. Senexter* is influenced by *dexter,* OE. *ǣfen* by *morgen,* Germ. *Morgend* by *Abend,* and OIcel. *fleire* by *meire.* Further instances may be found in most handbooks (for instance Brugmann-Delbrück II 1.17, Wundt I 447, Carnoy 55).

The problem of the correlative groups has been investigated experimentally by psychologists. The experimenter calls out a word at a time, and the observer is instructed to respond with the first word that occurs to him. We may assume that, if there is any closer connection between two words, and one of them is used as stimulus, then the other will appear as response in a majority of cases.

Thumb and Marbe (Exp. Unt. 17 sqq.) found that some words have favoured responses (*bevorzugte Reaktionen*), occurring in more than half of all the instances. Esper, experimenting with English words, arrived at similar results (Psych. Rev. 25)

Two words often function as favoured responses to each other. That is the case with adjectives of opposite meanings, as *large-small, heavy-light, old-young, thick-thin, white-black* (Thumb, IF 22, 22), or with complementary meanings, as *brav-fleissig, einsam-öde, grau-grün, nördlich-südlich* (F. Schmidt 92); with pairs of names for personal relations, as *father-mother,* with pronouns, as *I-you,* with certain verbs, as *give-take,* and certain common adverbs, as *here-there.* Numerals are mostly associated with higher numerals; the numerals 1—10 mostly with the *next* higher numeral (Thumb l. c.).

In some cases a third word appeared as *nächst bevorzugte Reaktion*. Some words were absolutely favoured as responses, without regard to the stimulus word; these were words with a high general frequency in language (F. Schmidt 88 sqq., Eberschweiler 271, Dauber 180 sqq, quoting similar experiments by Saling and Reinhold, Zs. f. Psych. 49 and 54).

Psychological evidence thus corroborates the assumption that has been made on the basis of linguistic phenomena: that there are groups of two, three, or, in a few cases, more words, which are apprehended by linguistic feeling as belonging together. But there is not sufficient evidence to show whether such groups embrace a majority of the words in a language, or if the majority are isolated.

We have, then, basic groups of three kinds. (1) Flexional groups in which one basic meaning runs unchanged, or comparatively unchanged, through a number of combinations with varying relational meanings, forming together the flexional scheme of one word. (2) Derivational groups, in which, in a similar manner, one basic meaning runs through combinations with varying relational meanings (often expressed by suffixes or prefixes, ablaut or other modifications, sometimes not expressed at all), forming together a group of derivations from one stem, a derivational scheme. And (3) correlative groups, consisting generally of two or three words whose basic meanings are correlated in such a manner that the words are often apprehended together. The names of the months and the numerals probably constitute the largest correlative groups. The names of the days in the week, and of the seasons, are other instances (Thumb and Marbe, Exp. Unt. 51 sqq.). It is not known what proportion of the vocabulary belongs to correlative groups.

9.14. *Relational* (*Formal*) *Groups*. For the existence of relational groups there is no conclusive linguistic evidence. R. M. Meyer (Zs. f. vgl. Spr. 43, 352 sqq.) regards the re-appearance of a typical suffix, as Kluge has demonstrated for Germanic names of nations, mountains, houses, shops, bread, baskets, etc., as a sign that these words form a semantic system, and this is, apparently, a common opinion.

I do not think that the conclusion is tenable. The fact that the nouns of a certain class, as for instance national names, have a common suffix, is the *result* of combinative analogy (see 9.22); B. I. Wheeler, Analogy

1, thinks that all groups are the result of analogy, which is probably not correct. A small number, perhaps only one single combination — the number of originals is of small importance, according to Thumb and Marbe, Exp. Unt. 82 — may be the origin of the whole class. The suffix is apprehended as representing a certain relational or basic meaning, and is therefore combined with other stems in a similar way. At the moment of creation, each new name was possibly felt to be connected with the name or names, on the analogy of which it was formed. Suppose that the first compound is A; on the analogy of A were formed B, C, and D; on the analogy of B were formed E and F; on the analogy of C, G and H; and on the analogy of G, I and J; and so on. The meaning of the suffix would be liable to change during this process, and although the whole series, historically, forms one chain with many ramifications, the chain is not necessarily closed, that is to say, E, H, I, and J need not have any direct connection — to linguistic feeling — with A or with each other. Cf. as an instance of this, the history of the suffix *-let* in the NED.

Experimental evidence shows that there is a tendency to respond with noun to noun, with adjective to adjective, and so on. The parts of speech are of course linguistic categories, and may be called relational categories, since each possesses specific syntactical functions, that is, specific relational meanings, but this fact does not prove that they form relational groups, *i. e.*, that they are felt to belong to each other, as for instance the case forms of one noun. The tables in Thumb and Marbe show that the authors used stimulus-words having a favoured response (as *young-old*, etc., cf. 9.13), and this circumstance of course greatly increases the number of responses with the same part of speech. In other cases we should probably assume that the syntactical nature of the stimulus word turns the observer's attention in a certain direction and favours a response belonging to the same category (see Selz II 432, Jung-Riklin IV 59 sqq., F. Schmidt 65 sqq., Esper, Ps. Rev., Dauber, Eberschweiler).

F. Schmidt (l. c.) experimented with verbs. His observers were schoolboys who had not yet been taught the conjugation, and who were therefore not influenced by the printed paradigms of grammars. Schmidt found that the first person singular present indicative was the most favoured response for nearly all other forms, when the observers responded with a form of the same verb as that used as stimulus. The result directly contradicts Paul's theory, according to which that should have been the case only when the stimulus was the first person of another tense. Other observers responded with another verb, and in a majority of cases with the same form as the stimulus, but we do not know how far this result is due to responses of a phonetic or imitative character (as *nimmst-gibst,* cf. Thumb-Marbe 68, and 9.42 below on rhyming responses), which prove nothing for the question of group formation. Schmidt's results have been tabulated by Thumb (IF 22, 39).

On the whole, the available evidence is not favourable to Paul's assumptions concerning relational (formal) groups. It is true that there are some indications that corresponding forms are associated, but it is probable that this is due to special factors. Arguments of a general character point in the same direction. Basic meanings, being generally more palpable and concrete, are much more salient to linguistic feeling than the abstract relational meanings. Nevertheless, we have found that basic groups are confined to certain definite types, constituted by a comparatively limited number of words. It is then improbable that identity or similarity of relational meaning should be able to hold together groups of the kind assumed by Paul, comprising, for instance, all comparatives, or all nomina actionis, groups that would run into hundreds, or even thousands, of words. We have to remember that analogy is an all-pervading phenomenon, and if relational groups are one of the indispensable foundations of analogy, they must be equally all-pervading. The evidence I have been able to bring forward shows, at least, that relational groups are not all-pervading.

9.15. *Conclusions.* The results of laboratory experiments can generally not be applied to speech without some reservations, due to the different conditions. Ordinary speech normally stands under the control of determining tendencies which guide the trend of thought, preserving and strengthening the associations which agree with the determining tendencies, but inhibiting irrelevant and disturbing associations (see 5.52). In ordinary speech, therefore, the idea of *old* will normally evoke the idea of *new* or *young* only if this association does not run counter to the ruling tendencies, or if the control of the latter is relaxed through fatigue, deflected attention, or any other reason (cf. 9.4). The experiments consequently show the conditions in which such associations *may* occur, but not that they actually must occur. This argumentation involves the consequence that in ordinary speech analogy is rarer than group formation, since the possibilities are made use of only in certain circumstances.

We have found that although basic groups are perhaps sufficiently general to play a part in analogical formation, relational groups are not. Since Paul's theory, which seems to be the current theory, is based on the existence also of relational groups, it is obviously inadequate even if no other arguments could be brought against it.

We have, then, to seek a better foundation for a theory of analogy.

9.16. *The Three Types of Analogy.* In proceeding to the explanation of semantic analogy, I base myself, as usual, on the linguistic material. This results, as shown in the following sections, in the establishing of three main types of analogy.

(1) *Combinative analogy*, consisting in the isolation and fresh combination of meanings, basic or relational.

(2) *Correlative analogy*, consisting in the naming of a referent with a word that is evoked owing to its semantic correlation to another, known word, in the same, or in another, language.

(3) *Phonetic interference*, consisting in the semantic influence of one word on another, owing to phonetic similarity.

The psychic processes for each of these types will have to be separately analysed, since they differ in several respects.

9.2. Combinative Analogy.

9.21. *Esper's Experiments.* The psychic process underlying combinative analogy has been elucidated by some experiments performed by Esper, which bring into a convenient form the theories that have to be applied (Esper, Exp. Invest.)

Esper contrived an artificial miniature language. It was based on four figures of fantastic shape, designed so as to avoid association with any object of daily life. Each figure occurred in four different colours, red, blue, yellow, and green. There were thus sixteen figures in all. The observers were told that the experiment was a test to determine how quickly they were able to learn the names of certain sacrificial objects in the Morgavian language, which is spoken on the northern slopes of the Himalaya Mountains. The figures were shown one at a time, and as a figure was being shown the experimenter spoke its name. After the figures had been shown four times (the learning series), they were shown again in an entirely different order, and the observers were asked to give the names, as far as they could remember them (the recognition series). After that, the learning series was again repeated four times, followed by a recognition series, and so on, until there had been, on the first day, 32 learning series in all, and

8 recognition series. On the second day there were 16 learning series, on the fourth day 8, on the eighth day 4, on the sixteenth day 2, and on the thirty-second day 1, with recognition series inserted after every four learning series. On the sixty-second day there was a final recognition series in order to ascertain how much the observers remembered. Esper's main purpose was to study contamination between word forms, but analogical formations were also registered.

In the first experiment, the names of the figures were composed in the following manner:

	I		II		III		IV	
Red	nasling	(62)	nasčaw	(61)	nasdeg	(65)	*naskop*	(51)
Green	wečling	(59)	weččaw	(66)	wečdeg	(51)	wečkop	(67)
Blue	ʃownling	(74)	ʃownčaw	(62)	ʃowndeg	(64)	ʃownkop	(64)
Yellow	rojling	(71)	*rojčaw*	(51)	rojdeg	(66)	rojkop	(69)

That is to say, the nonsense-words are composed of syllables formed according to English speech habits. Each syllable is correlated throughout to one of the factors shape and colour.

In all the learning series, two figures were left out (italicized in the table above). They were never shown in the learning series, and their names were never pronounced by the experimenter. The observers were thus never taught them. In the recognition series, on the other hand, these two figures were included, nothing being said to the observers of this circumstance.

The percentage of correct responses in all the recognition series is given in parenthesis in the table. For the figures named it varied between 51 and 75 per cent. For the two unlearned figures it was 51 per cent. The unlearned figures were thus named as correctly as some of the others. The maximum of correct responses in any one recognition series was 86 % for the unlearned figures, and 88 % for the others. Associative interference (contamination), as for instance the response *nojling* instead of *nasling*, occurred in a few cases, but no case more than twice.

In Esper's second experiment the figures were the same but the names were different:

	I		II		III		IV	
Red	nulgen	(37)	dojlgen	(50)	pelgen	(75)	*wilgen*	(5)
Green	nugdet	(15)	dojgdet	(31)	pegdet	(39)	wigdet	(34)
Blue	nuzgub	(32)	dojzgub	(17)	pezgub	(15)	wizgub	(37)
Yellow	numbow	(24)	*dojmbow*	(4)	pembow	(36)	wimbow	(52)

As before, specific sound-sequences are correlated to the two factors of shape and colour, but the order of the linguistic elements is shape-colour, thus reversing the usual English order of adjective-noun. The linguistic elements are not separated by a natural syllable division: *nu-lgen*, *nu-gdet*, etc., are contrary to English speech habits.

In this case the rate of learning was much slower than in Exp. I. The percentage of correct responses for all the learning series together varied between 15 and 75 % for the learned figures. The percentage for the two unlearned figures was 4 % and 5 %. The maximum of correct responses in any one recognition series was 19 % for the unlearned figures, against 61 % for the others.

The result is thus very different from that of Exp. I. in which the unlearned figures were named correctly in 51 % of the responses. There was further a strong tendency to contamination, and to a modification of the non-English syllable division in accordance with English speech habits. "In fig. 1, 2, and 3, this tendency takes the direction of extending the natural syllables *nul-*, *dojl-*, and *pel-*, occurring in *nulgen, pelgen, dojlgen*,[1]) to the other words. These natural syllables thus become semantic units corresponding to shape, while the syllables *-gen, -det, -gub, -bow,* similarly become semantic units corresponding to color" (Esper l.c.38).

However, Esper concludes that the material in hand is not sufficient to permit us to conjecture in what manner the tendencies here apparent with regard to contamination would have worked out, or the linguistic system finally have reached an equilibrium. I have mentioned this point in passing, and now turn to the analogical formations, which are our main concern.

9.22. *Application to Language.* We have now to explain how it was possible in the first experiment, which is most closely parallel to actual linguistic conditions, to supply the names of the unlearned figures almost as quickly and correctly as those of the other figures.

It is clearly a case of formation of categories and general concepts. The observers are presented with certain factors running unchanged through a series of varying concomitants. In such cases, as is well known, the permanent factor may be isolated from its varying surroundings and apprehended as a unit capable of being variously combined with other elements. In this case the elements are the syllable *nas-* and the quality of redness, the syllable *-kop* and a certain shape, and so on. This shape, and the quality of redness, are then presented to the observer in a new combination, and on condition that the concomitance of the two factors with their respective names has been presented a sufficient number of times, so that they automatically accompany each other in our mind, there will be no difficulty for the observer to analyse the new figure into its elements, and to name it according to the "language system" of the "Morgavian" dialect, although he has never seen the figure before, and has never heard the name he is making up.

The process of a combinative analogical formation in real speech is exactly similar. A referent is apprehended as being adequately named by some known word (stem), and as standing to other referents in a relation that is suitably denoted by a certain ending (or sometimes left undenoted, cf. 4.26). Stem and ending are combined in a way that is new to the speaker, but which is, nevertheless, felt by him as natural and conforming to the rules of his language. The two isolable factors are the basic meaning and the relational meaning, as apprehensions of the corresponding qualities of the referent, with their respective names. Each of these may occur in a variety of combinations, and is thus isolated and apprehended as a unit, capable of being freely combined with other units, within the limits prescribed by the linguistic system.

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[1]) Note the high percentage of correct responses for these figures.

In the same way suffixes, like *-let*, are combined with new items, thus extending their range. Esper's words are no doubt to be regarded as more closely corresponding to combinations of stem and suffix, or of two stems, that is to say, of two basic elements, than to combinations of basic and relational elements. C. & W. Stern (Kindersprache 394 sqq.) give interesting lists of childish formations of these types.

An analogical formation of the present type may be defined as being the naming of a previously unknown — at least momentarily unknown — combination of a basic and a relational meaning, or of two basic meanings, each meaning being expressed by its own name, except in cases where the relational meaning is left unexpressed, or is expressed by word-order (cf. 4.26). An indispensable condition is the existence of one or more previous combinations apprehended as such by speakers, and analysed into elements capable of being freely combined in various ways, so that the units entering into them are available for new formations. Thumb and Marbe have pointed out that the number of previous formations serving as patterns for analogy or as basis for a scheme, is of subordinate importance. Thus, the Latin inchoative element *-sc-* has derived its meaning from the verb *cresco* (according to Oertel 287. Cf. Bloomfield A J Ph 16 410 sqq., Wundt I 445).

The basic groups, flexional, derivational, or correlative, are not *causes* of analogy. They furnish the patterns according to which analogical formations are fashioned. Series like *lead-leader-leading* occur in great numbers, and it is on the basis of a schematic apprehen-

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[1] Cf. Freudenthal 106 sqq. quoting Müller and Pilzecker § 13.

sion of such series that a speaker is able to form new nomina agentis in *-er*, or new nomina actionis in *-ing* from verbal stems. Similarly with series like *follow-followed*, *man-man's*, *swift-swiftly*, etc. A new formation is not necessarily made on the basis of an individual pattern. It is more likely to be guided by an abstract scheme, or as Wundt (I 461) terms it, *paradigmatische Vorstellungsreihen*, abstracted from a number of groups of one type. The process may, from the point of view of its result, be described as a supplementation of basic groups or patterns, but that formula gives no indication of the actual psychic process.

It is necessary to emphasize the passive, normative part played by the groups, the language system, in opposition to the current theory, which is represented even by Delacroix: "l'analogie est l'effet de la présence dans l'esprit d'un système de formes. Elle suppose un modèle et son imitation régulière. Elle suppose que les formes se rangent dans l'esprit et qu'elles tendent à s'imposer. La forme analogique jaillira sous leur pression." (Delacroix 248). Analogy is not the *effect* of the existence of a system of forms, and the analogical form does not issue *under the pressure* of the form system. On the other hand, it is of course quite true that analogy presupposes patterns, and imitates them. But the effective factor, the causa movens, is the necessity of filling the functions of speech, and the formal system provides only the pattern or norm for the analogical creation. We find again that the striving to adapt speech to a better fulfilment of its functions is the driving power in the development.

Another point should be noted. Analogical formations appear in the speech of children at a very early period, in normal cases soon after the end of the second year of life (W. Stern, Psych. 130, 141, 143). We are therefore compelled to explain analogies with the help of psychic processes which a child is known to master at that age. According to W. Stern's tables (l. c. 143) a normal child begins to use verbs, adjectives, and particles (*i. e.*, words of *relation*), and to combine them into simple sentences during the latter half of his second year. This implies that the child is then able to dissociate activities, qualities, and relations from the objects to which they are related. Intentional analogical formations do not of course occur at this age. But the process assumed by Paul to explain analogies could scarcely be effected without intentional effort, and is thus altogether out of the question at the time when analogies actually begin to appear. (Cf. Stern, Kindersprache 140 sqq.).[1])

9.23. *A Question of Principle.* In ME the adjective *light* acquired the meaning 'of small value, cheap' (cf. NED, and Stern, Swift 57). The development can be clearly traced. The corresponding meaning of the adverb *lightly* (Stern, Swift 68) is instanced once only, and it does not seem to have arisen through independent development of the adverb, but has probably been "borrowed" from the adjective. We have to assume that a speaker wishing to express the notion of 'cheaply', for some reason selects the stem *light-*, and, in accordance with the usual practice of forming adverbs, employs the word *lightly* (*Me buð lihtliche a þing þet me luueþ lutel*, 'men buy cheaply a thing for which they care little'. Ancren Riwle p. 392).

Theoretically, the word *lightly* in this phrase may be explained in two ways. We can assume that the speaker, forming the *meaning* 'cheaply', employs the well-known word *lightly* to express it, and feels at liberty to do so, because the new meaning of *lightly* corresponds to a current meaning of the adj. *light*, and he is accustomed to use cognate adjectives and adverbs in corresponding meanings. The process is one of group supplementation: the parallelism of meanings between *light* and *lightly* is completed with a missing member. We have the *old* word *lightly* used in a new sense.

Secondly, we can assume that the adverb *lightly* in this context is a new coining, which the speaker makes on the basis of the adjective *light*, but without associating it with the previously — in other meanings — current adverb *lightly*. Genetically, we have then not the old word in a new meaning, but really a new word, although identical in form with the old word; a new word created through combinative analogy.

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[1]) We have now found two essential objections to Paul's group theory. First, the relational groups do not occur to anything like the extent that would be necessary if they really were indispensable for analogical formations; secondly, at the time that a child begins to form analogies, he is still unable to perform intentionally a complicated operation of the kind involved in Paul's theory.

A third objection arises from a comparison of the results of Esper's two experiments. Why is the process of analogy and learning so much slower in the second case? Taken as totals, the words of the second "language" are not more difficult than those of the first, and the grouping ought therefore to proceed just as easily, with formation of "Proportionengruppen". We should, on Paul's theory, expect the results to be about the same in both experiments. On the other hand, if we adopt the isolation-and-combination theory, we base it on the isolation of elements in the compound words, as names of corresponding elements in the referents. Such isolation requires a word as support. The word is the centre round which the notion crystallizes, and without a name the formation of a general notion is scarcely possible in ordinary circumstances (cf. 3.21, 5.53, and the writers quoted there). Now, in the second experiment, the compounds were formed in such a manner that the second element began with a consonant group that cannot be pronounced initially in English: *-zg-*, *-mb-*, etc. This difficulty retarded the isolation of the phonetic elements, the names, and so the formation of the general notion; the analogical process would therefore take more time to arrive at a satisfactory result.

A similar problem arises with regard to shortenings. Wellander (Studien II 3 sqq.) contends that the German word *Schirm* 'umbrella', is a shortening of the full term *Regenschirm* and not a specialized meaning of the general term *Schirm* 'shelter'. From a genetic point of view, *Schirm* 'umbrella' is not the old word with a changed (restricted, specialized) meaning, but a new word. I have objected (Stern, Litteris III 54) that it is not always so. If a type-writer is called *the machine*, we can explain it only as a specialized use of the generic term. Why may we not explain *Schirm* 'umbrella' in the same way? It is true that in the latter case the generic name enters into the full name of the species as its second element, but that is a mere coincidence (See below 10.412).

Returning to the analogical formations, there are cases in which the second explanation is alone possible, *viz.*, those in which the word coined by analogy did not previously exist. But with regard to *lightly* and similar words, both explanations are possible, just as *Schirm* 'umbrella' might be an instance of specialization or of shortening. Which is the correct explanation?

I do not think it is unfair to counter this question with another: does it matter? For if we regard *lightly* as a new coining, we must assume (1) that the *speaker* who makes it and repeats it cannot in the long run avoid associating his *lightly* with the current word *lightly*, and thus apprehending them as the same word; and (2) that the *hearer* must at once apprehend *lightly* as being the current word, which, with the help of context, he is able to interpret in a new but perfectly natural manner, the new meaning corresponding to a familiar meaning of the adjective *light* (cf. Hatzfeld, Bedeutungsversch. 53).

For the speaker it is, then, for all practical purposes indifferent if *lightly* 'cheaply' is a new coining which is, possibly at once, associated to the current word *lightly*, or rather identified with it; or if *lightly* is the current word itself with a new meaning. To separate the two would be to make a distinction without a difference. For the hearer, the process is in both cases theoretically and actually the same.

We may adduce in this connection the fact, pointed out by Paul and others with regard to morphological analogies, that "es ist für die Natur dieses Vorganges ganz gleichgültig, ob dabei etwas herauskommt, was schon früher in der Sprache üblich gewesen ist, oder etwas vorher nicht Dagewesenes" (Paul, Prinz. 110). A speaker does not learn all speech forms directly, but coins many of them by analogy. Children often do this in such a way as to be corrected, but when they make correct forms, these are accepted and added to their vocabulary. In a similar manner we must assume that even if a certain meaning of, say, an adverb, is current in the language, one or more speakers may not have heard of it, but nevertheless make use of it analogically, because they know that the cognate adjective has a corresponding meaning (cf. Paul, l. c., Jespersen, Language 128, 163, Oertel 163 sqq.).

Paul remarks (Prinz.195): "Eine Bedeutungserweiterung des Grundwortes oder des dem Sprachgefühl als solches erscheinenden Wortes teilt sich leichter der Ableitung mit, als umgekehrt eine Bedeutungserweiterung der Ableitung dem Grundwort." This is easily explicable on the combination theory: when we form a derivation we *use* the stem itself, and any meaning attaching to it can easily arise in mind along with it. A new meaning acquired by a derivation, on the other hand, is felt as belonging primarily to the derivation only, and is not so easily called up in mind in connection with the stem, if not specially induced by the context.

With regard to the psychic process in the speaker's mind when using *lightly* 'cheaply', I analyse it in accordance with the theory illustrated by Esper. The referent is analysed by the speaker as having the quality of cheap-ness; this is the referent of the basic meaning, which is expressed by the stem *light*. The quality is attributed to a verb, and is consequently adverbial in character; this furnishes the relational referent, which is denoted by the ending *-ly*.

The driving power for the innovation is, as usual, the functions of speech and the immediate purpose of the speaker. The derivational groups of the relevant kind (adjective-adverb) furnish a scheme which acts as a norm, determining the form of the analogy. For the purposes of the present study I take up a purely empirical position. We find that *lightly* occurs in the sense of 'cheaply', which does not seem to be explicable by an independent development of the adverb itself, but which corresponds to the sense 'cheap' in the adjective *light*. Whether *lightly* in its new meaning is also morphologically a new coining, or if it is the old word with a new meaning given to it — that is a question which I leave aside as irrelevant. The meaning is, in whatever way we explain its connection with the word, due to an analogical process, a supplementation of the derivational scheme, and I class it as such. The result of this process is a "sense-loan" from a cognate word, or another flexional form of the same word. With regard to the psychic mechanism the type is altogether different from what is usually termed sense-loans, from foreign languages (see 9.33).

I shall now proceed to discuss the different types of combinative analogy, and shall distinguish analogy in flexional, in derivational, and in correlative groups.

9.24. *Flexional Groups.* An analogical sense-change takes place in flexional groups as a supplementation of the flexional pattern when a member of the group acquires, otherwise than through independent development, a meaning that did formerly not belong to it, but which corresponds to a meaning belonging to some other member or members of the group.

The OE adverbial comparative *raþer* signified 'sooner, more quickly'; but that which happens 'sooner' than another event or action, also happens 'earlier': we find equivocal instances in OE: *Hwi comon ge raþur þonne eower gewuna wæs* 'why did you come more quickly, or sooner, or earlier, than usual?' (Ælfric, Exodus 2.18), which shade into the fully developed meaning 'earlier': *sume lator felađ þare læcedoma, sume raþor*, 'some feel the medicine later, some earlier' (Læceboc 26.36); the sense is well instanced in ME: *A hwilke time se eure Mon of þinchþ his mis-dede, Oþer raþer ođer later, milce he scal imeten* (Poema Morale Lamb. 131). In the positive, we do not find the sense 'early' until the ME period (earliest instance: *Al þat þu singst raþe oþer late*, Owl and Nightingale 1147), and there are no intermediate instances between 'soon' and 'early'. It seems probable that the change took place in the comparative only, and that the new meaning was afterwards extended to the positive (Stern, Swift 34 sqq.).

It is of course usual for the positive and the comparative forms to have perfectly corresponding meanings. By the development of a new meaning in the comparative, a gap is caused in the group, and it is filled by supplementing the scheme with a corresponding meaning for the positive. As soon as the need, or the desire, to do so arose, this supplementation could take place.

Judging by the instances given in the NED — I have no other evidence for this word — a similar process has taken place with regard to *soon* 'readily, willingly'. For the comparative, the sense 'more readily, easily' is quoted from the Ancren Riwle (a. 1225), and the sense 'more readily as a matter of choice', which apparently arose out of the former, from Hardyng's Chronicle (1458). The positive *as soon as* 'as readily as, as willingly as', is not quoted till Shakespeare, and it appears that the sense was introduced from the comparative into the positive.

Some Latin instances are given by Hey. The participle *suspectus* has acquired the meaning 'suspected', probably owing to the influence of the noun *suspicio*. The verb *suspicere*, on the other hand, retained only the meaning 'to look up to, revere'. But in Sallustius we find: *suspectus regi et ipse eum suspiciens novas res cupere*. In this connection *suspicere* has been influenced by the preceding *suspectus* and has received the meaning 'to suspect'. A levelling out in the opposite direction is instanced by Juvenalis 9.57: *te Trifolinus ager fecundis vitibus implet, suspectumque iugum Cumis et Gaurus inanis* 'the mountain ridge looked up to by Cumæ' (Hey ALL 13, 214).

Sallustius once wrote *aquis hiemantibus* 'the stormy waters'. But in the sense 'to storm' *hiemare* is regularly only impersonal, while in the sense 'to hibernate' it has also personal forms. Sallustius has coined a new form of the impersonal verb, perhaps influenced by the personal forms of the other meaning (Hey l. c.). — I give these instances on Hey's authority.

In most cases, sense-changes take place in such circumstances that any flexional form of the word may be equally affected. It is only exceptionally that a particular expression, requiring a particular flexional form, is involved, as in the instances quoted. Moreover, it requires a detailed knowledge of the history of the word to enable us to ascertain the precise nature of the process, and consequently good instances of this type are very rare.

9.25. *Derivational Groups.* The analogical process in supplementing derivational schemes has attracted more attention and is better known than that treated in the previous paragraph (cf. Hatzfeld, Bedeutungsversch. 34 sqq., 46 sqq., Delacroix 207). The following instance is typical (Stern, Swift 108 sqq.).

The ME. adverb *faste* originally signified 'firmly, immovably'. By a development that can be traced in detail the adverb acquired the meaning 'vigorously, violently, eagerly', and further that of 'swiftly', a stage which was reached about 1300. The cognate adjective *fast* originally signified 'firm', immovable' (passive strength). It took no part in the development of the active sense in the adverb, and there are no traces of a meaning 'vigorous, violent, eager'. Towards the end of the 14th century, we find a few instances of the meaning 'swift', which is now a common one in the adjective: *a vast vleynge, a faste trott, no faster course,* 'a rapid flight, a rapid trot, no swifter course'. As stated in the NED, this is clearly a case of borrowing from the adverb (cf. Stern, l. c.).

The psychic process is identical in principle with that of flexional supplementation. I refer to the analysis in 9.23. Note that the earliest instances of the adj. *fast* 'rapid' are all of them qualifiers of nomina actionis, of which two, *vleynge* and *trott*, correspond to common verbs of motion. Since the adv. *faste* 'rapidly' was common, the phrases *flen faste, trotten faste* (to flee, to trot rapidly) must have been well-known to speakers, and perhaps served to facilitate the change. In other cases, no such intermediary phrases are found, and it is uncertain if they are necessary.

Note further that it is only the meaning 'rapidly' that is borrowed by the adjective. The adverb *faste* was, at one period of ME, very common in the senses 'vigorously, violently, eagerly', with an intensifying force, but this sense, although much more common than that of 'rapidly', is not borrowed by the adjective. One would think that just as it is easy to go from *faste flen* to *a fast fleing*, it would be easy to go from *faste fighten* 'to fight vigorously', to *a fast fight* 'a vigorous or energetic fight', but there is no trace of such a meaning of the adjective. The reasons for this are entirely obscure.

Like *fast*, the adjective *swiþ* 'strong, vigorous, forcible', has acquired the sense of 'swift, rapid' by borrowing from the corresponding adverb, *swiþe*, in which that sense originally developed (Stern, Swift 127).

The adj. *hard* acquired the sense 'difficult to do or accomplish, not easy' in early ME (Ormulum, 1200, NED). In the adverb *hardly*, the corresponding sense is not found (according to the NED) till Coverdale 1535. Even if somewhat earlier instances should be discovered, it seems reasonable to assume that the meaning in question was transferred from the adjective to the adverb. In the adverb there then arose, through independent development from the sense mentioned, a new meaning, 'not quite, scarcely'. This is instanced from 1553 and there is no corresponding sense in the adjective.

Reversion belongs to *revert*, and the proper noun to *reverse* is *reversal*. But the greater frequency of the ending *-ion* has led to *reversion* being used as noun to *reverse*. (Cf. Fowler, MEU: "the reversion of our Free Trade policy").

The members of a derivational group may be differentiated by their prefixes. L. *ascendere* and *descendere* must be assumed to form a group by reason of their common stem and correlated meanings. In this parallelism there was one exception: *descendere* signified also 'to be a descendant of', while *ascendere* could not mean 'to be an ancestor of'. But we find *ascendentes* used as meaning 'ancestors in a direct line', just as *descendentes* means 'descendants in a direct line'. The two words must have been analysed by speakers as compounds, in which the prefix indicates the direction of the relationship denoted by the stem. When a speaker sought for a word denoting ancestors, he would be brought by his acquaintance with *descendentes* to analyse the notion as consisting of an idea of direction (motion) and an idea of relationship, and consequently employed *ascendentes*. — Since the meanings of the two words stand to each other in a relation of opposition, it might be possible to explain the analogy as correlative.

Other Latin instances are adduced by Hey (ALL 13, 211 sqq.). *Orare* acquired the meaning 'to pray', and *oratio* borrowed from it the corresponding meaning 'prayer'. *Truncus* primarily denoted the trunk of a tree. The sense 'fragment, cut off piece' is from the verb *truncare* 'to make into a trunk, to cut off, to mutilate'. *Praedo* 'robber' is once found in the sense of hunter, owing to the influence of *praeda* 'quarry, prey'. (Cf. Paul, Prinz. 192 sqq., 244 sqq.). — Fr. *bouchon* signified (1) stopper, and (2) handful of straw. The verb *bouchonner* had the two corresponding senses. The second of these, 'to rub with straw', developed the metaphorical meaning 'to caress, to stroke', and then the noun analogically acquired the sense 'darling', of little children. (Hatzfeld, Bed.-versch. 47, quoting Dict. Gén.).

If the supplementation leads to the creation of a form not previously existing in language, the process is the same but we have no sense-change. Thus when the adjective *moony* was coined, probably on the analogy of *starry, sunny,* etc. Words of this type fall outside the scope of my investigation; they are of course very numerous.

As new words I regard also the use of, for instance, *iron* as an adjective or as a verb. The change is mainly one of relational meaning, and as such it is excluded here. The process is extremely common in English.

We might call this type "sense-loans from cognate words in the same language", but, as will be shown in the next section, the psychic process in sense-loans from other languages is quite different.

9.3. Correlative Analogy.

9.31. *The Psychic Process.* The basis of this type of analogy is the correlative group formed by two or more words. I may take as a typical instance the group formed by two corresponding words in two different languages, as French *arriver* and English *to arrive.* Their meanings correspond on most points, and to persons knowing both languages the two words with their meanings (the two flexional groups) form together a correlative group, the relation holding between them being one of similarity. There is, however, one gap in the correlation of meanings: *arriver* means also 'to attain success', and this meaning was originally strange to the English verb; it has now made its appearance. It is not given by the NED, but is found in the COD, and in Fowler, MEU, as a Gallicism.

I explain the process in the following manner. An English speaker with a knowledge of French has occasion to denote an action (the referent) which he apprehends as 'attain success'. For some reason — perhaps recent use — the French word arises in his mind. In seeking an English equivalent, he is led by the phonetic similarity and the accustomed correlation between the meanings of *arriver* and *arrive* to think of the latter, and finding no obstacle to its use, he employs it. I think that the new meaning should not be too far away from the traditional range of the word in question. In the instance given, *arrive* can easily be understood as metaphorical.

The starting-point for the process of analogy is the French word with its meaning; the relation of similarity presents itself as a means of solution, since what is sought is an English word to correspond with *arriver*. We have thus one fundament and a relation, and the second fundament automatically presents itself in the shape of *to arrive* (see on the eduction of correlates 4.265).

9.32. *Within one Language.* Words forming correlative groups often influence each other's form (cf. 9.13). It is therefore natural to assume that they also influence each other's meaning, but reliable instances are rare. A very detailed investigation of the history of a word is required to show up such influences.

Black letter day is 'an inauspicious day; as distinguished from a red letter (or auspicious) day; the reference being to the old custom of marking the saints'-days in the calendar with red letters'. *Black letter* has here, through analogy, received a meaning which is otherwise unknown in the combination, the ordinary meaning being that of 'Gothic' or 'Old English' type. *High* signifies 'intense, extreme' and was used in that sense of opinions, doctrines, and so forth. We have it in the phrase *High Church.* It seems not improbable that the corresponding phrase *Low Church* is due to analogy, although the chronological difference between the two earliest quotations in the NED is insignificant (cf. NED s. v. *high* adj. 15 b).

Hey states that in Latin, where *equites peditesque* was a current phrase, *equites* became the designation of a social class, the knights. This led to *pedites* receiving the meaning 'common man, common citizen' (Hey, ALL 13, 220). It seems to me that other explanations might be imagined. Oertel (166) states that "when *constantia* was used metaphorically to denote a certain mental quality, it "induced" a similar change in its opposite *mobilitas*".

9.33. *Two Languages Involved (Sense-loans).*

9.331. *Theoretical Discussion.* In the instance given above (*arrive*) there was not only a similarity of meaning but also a similarity of form between the two words involved, and it would seem that in the case of unintentional sense-loans formal similarity is of great importance.

Sense-loans on a large scale occur among bilingual speakers. If we were able to trace in detail the semantic history of English from 800 to 1100 we should probably find that the meaning of many English words had been influenced by their Scandinavian correspondences. When *eorl*, 'earl', originally 'a man of noble rank', as distinguished from a *ceorl*, 'churl, or ordinary freeman', assumed the sense of 'the vice-roy or governor of one of the great divisions of England', this is clearly due to the fact that *earl* was used to render Scand. *jarl*, in the place of native English *alderman*. Later on, *earl* was applied to 'all feudal nobles and princes bearing the Romanic title of Count' (NED), which we may regard as a second sense-loan. In the first instance, *earl* renders a cognate word of great phonetic similarity, in the second instance it renders a totally different word. Lacking the necessary material it is impossible to say at present whether these two sense-loans are both unintentional, or whether the second is intentional; *i. e.*, if the phonetic similarity is necessary for unintentional sense-loans. The instances from OE and ME adduced in Stern, Swift, are all of them found in translations or else in texts obviously influenced by French or Latin models, and they are therefore to be regarded as more or less intentional.

In accordance with my general principles I leave aside cases in which a foreign word is adopted,[1] and discuss only instances of the type already given: a foreign word is rendered by a native word which in the main corresponds to it, but has not previously been used in the sense now occurring. Several authors (see for instance Wellander, Studien I 103) speak of foreign influence on the "inner speech-form" of a language, but I see no necessity for introducing the term here.

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[1] I exclude also the coining of a new word of native material in order to render a foreign word: as *bodeful* for *ominous*, *folklore* for *tradition*, *birdlore* for *ornithology*, *foreword* for *preface*, *betterment* for *improvement*, and the innumerable German coinings of the same kind: *Jungfernrede* for *maiden speech*, *Halbwelt* for *demimonde*, etc. See Seiler ZsfddU 31, and Fowler, MEU s. v. Saxonisms; see also 11.2 below.

With regard to points of view for the further classification of sense-loans, I have already mentioned the distinction between intentional and unintentional, which, however, is inapplicable owing to insufficient material. Another distinction would be that between cases in which the foreign and the native word are similar (as *earl* and *jarl*), and those in which they are not (as *earl* and *count*). But we cannot say if this distinction is essential or not. Seiler's distinction between words in which the earlier native meaning has died out, and only the new borrowed meaning remains, and words in which both remain, seems unessential with regard to the loan itself (Seiler, ZsfddU 31, 241 sqq. See Wellander, Studien I 103 for earlier classifications).

Sandfeld-Jensen (Calques 166 sqq.; see also the literature quoted there) makes a threefold distinction. (1) Le sens d'un mot s'élargit d'après les significations du mot correspondant d'une autre langue (emprunt sémantique). *Earl* and *arrive* are instances of this type. (2) La traduction sert à la formation de mots nouveaux: G. *entdecken* is coined on the pattern of F. *découvrir*, F. *surhomme* and E. *superman* on the pattern of G. *Uebermensch*. This type, as involving the coining of new words, may be left aside. (3) On traduit des tournures de phrase et des locutions. G. *den Hof machen* is a copy of F. *faire la cour*, E. *to leap to the eyes*, of F. *sauter aux yeux*. Seiler (l. c.) makes a similar distinction between *Bedeutungsentlehnung* and *Lehnredensarten*. As a more formal criterion, it may be useful in dealing with the material. In actual speech all words occur in contexts, and the difference between the first and third of Sandfeld-Jensen's types is the fact that in the former the change affects one word in a momentary combination, in the latter type it affects one or more words in a permanent combination, a standing phrase. Since no other classification is available, I shall make use of it, and also distinguish as far as possible between loans that are influenced by phonetic similarity, and loans that are not so influenced.

9.332. *Single Words, Semantic Similarity only.* In OE and ME the influence of Latin and French was often the cause of sense-changes in the English words. OE *cwic* 'living' had many senses in common with Latin *vivus*, and was therefore used to render it in *panis vivus, aqua viva,* and other expressions introduced by Christianity (Stern, Swift 151, 161). Similar changes on a large scale often take place when a cultural movement is introduced into one country from another in which it has already developed a technical vocabulary. (See Carnoy 135, 229, Sandfeld-Jensen, Calques 167, Bally I 48, Lehmann, Bedeutungswandel, Seiler l. c., Wellander, Studien I 103 sqq., Paul, Prinz. 401 sqq.)

OE *Me leoht slæp oferarn* 'a light sleep fell over me', is a literal translation of *levis mihi somnus obrepsisset* (Bede, Hist. Eccl. 410. 12). With the exception of one instance in the Prose Guthlac, which is probably also due to Latin influence, I have found no instance of the phrase *light sleep* in OE or ME, and the earliest quotation in the NED is from 1827 (Stern, Swift 52). Chaucer writes, *Never ne shal his bytinge bisinesse forleten him whyl he liveth, ne the lighte richesses ne sholle nat beren him companye whan he is ded*, where *bytinge* translates *mordax*, and the last phrase runs in the original, *defunctumque leves non comitantur opes* (Chaucer's Boethius B. III M.3:6. Stern, Swift 53. See also ib. 276).

According to Oertel (167) Mrs. Humphry Ward uses *overdrive* in the sense of German *übertreiben* 'exaggerate', when she says *overdriven realism, you overdrive your duties.*

Exposition is used in the sense of 'exhibition' under influence of F. *exposition* (Fowler, MEU s. v. Gallicisms).¹)

German handbooks give many instances of this type. G. *Geschmack* follows the meanings of F. *goût*, and *Kunst* those of L. *ars* and F. *art*, *Schönheit* those of F. *beauté*. (Seiler 244). G. *Ueberzeugung* originally

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¹) As exemplifying the difficulties which attend the study of this type I shall quote the remarks of the NED on the sense-development of the prep. *of*, which was influenced by Latin and French: "Even in OE., this native development was affected by the translational character of the literature, and the employment of *of* to render L. *ab, de,* or *ex*, in constructions where the native idiom would not have used it. Of far greater moment was its employment from the 11th c. as the equivalent of F. *de*, itself of composite origin, since it not merely represented L. *de* in its various prepositional uses, but had come to be the Common Romanic, and so the French, substitute for the Latin genitive case. Whether *of* might have come independently in Eng. to be a substitute for the genitive is doubtful . . . but the great intrusion of *of* upon the old domain of the genitive, which speedily

'act of proving some one guilty by means of witnesses' corresponded to F. *conviction.* The latter word acquired the sense 'persuasion', and this was borrowed by the German word (Hey, ALL 9).

9.333. *Single Words, Semantic and Phonetic Similarity.* In addition to *arrive* (9.331), Fowler (MEU, s. v. Gallicisms) quotes as instances of "giving to an existent English word a sense that belongs to it only in French, or to its French form only", *intrigue,* verb, 'interest, perplex', *impayable* 'priceless for absurdity, impudence, etc.', *actual* 'concerned with the present', as in: *the most actual and instructive article is on broadcasting*". It seems difficult to distinguish these instances from Fowler's fourth type: "substituting a French form or word that happens to be English also, but in another sense, for the really corresponding English", as *brave* for *honest* or *worthy,* or *ascension* for *ascent.*

Novel, subst., shows repeated sense-loans. It was first brought into English from the French, in the two senses 'something new, a novelty', and 'news, tidings' (1460 and 1475, respectively, in the NED). In 1566 it is found in the sense of 'tale or short story', due to It. *novella,* Sp. *novela,* used of the stories in Boccaccio's Decamerone, and others of that kind. Finally, it was employed to designate 'a new decree or constitution, supplementary to the Codex', which was an adaption of Lat. *novella* (sc. *constitutio*). The sense of 'judicial or legislative assembly' in E. *chamber,* is borrowed from L. *camera* and F. *chambre;* similarly G. *Kammer* and Swed. *kammare.*

E. *slim* 'sly, cunning' is said to be an adoption from S. African Dutch, at the time of the Boer war. F. *sélection* has taken on technical senses after E. *selection* (Darwin); similarly Swed. *urval* (Darmesteter, Mots nouveaux 61; further Hatzfeld Bed.-versch. 5; Carnoy 230; Wellander, Studien I 128).

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extended to the supersession of the OE. genitive after adjectives, verbs, and even substantives, was mainly due to the influence of F. *de.* Beside this — the most far-reaching fact in the sense-history of *of* — the same influence is also manifest in numerous phraseological uses, and esp. in the use of *of* = F. *de* in the construction of many verbs and adjs. Many of these can be clearly distinguished; but, in other cases, the uses derived from F. *de* have so blended with those derived from OE. *of,* giving rise again to later uses related to both, that it would be difficult, if not impossible, to separate the two streams, with their many ramifications". This quotation clearly shows what careful research would be necessary to disentangle all the threads in the sense-history of the "big" words.

9.334. *Phrases.* It is very common for whole phrases of two or more members to be taken over, and this may easily lead to one or more words receiving a new meaning. Wellander points out (Studien I 123) that when G. *Geist* adapts itself to the various meanings of F. *esprit,* this is due to a series of literal renderings of phrases like *Geist des Jahrhunderts* from *esprit du siècle, Unternehmungsgeist* from *esprit d'entreprise, schöner Geist* or *Schöngeist* from *bel esprit,* and so on. The second element is isolated from these combinations in its new shade of meaning, and is then capable of being used alone in the new sense. Similarly German *Vorlesungen über Geographie* was made into Swedish *föreläsningar över geografi,* and the particle *över* thus received a previously unrecorded meaning of 'on, concerning', in which sense it was isolated and entered into new combinations, without German prototypes.

Among such *calques linguistiques* in English, Fowler quotes, from French, *to jump* or *leap to the eyes, to the foot of the letter, give furiously to think, knight of industry, daughter of joy, gilded youth, living pictures* (*tableaux vivants*), *the half-world, rose-colour, curtain-raiser, do one's possible, castle in Spain, goes without saying, suspicion* (*soupçon*), *dean* (*doyen*), *marriage of convenience, on the carpet, success of esteem.* The phrases are generally intentional, and the ensuing sense-change probably largely contextual.

To give a person the sack is a copy of a French phrase, current in Fr. from the 17th century: *On luy a donné son sac,* 'hee hath his pasport giuen him' (said of a seruant whom his master hath put away; Cotgrave). Cf. Dutch *iemand den zak geven,* to give one the sack (already in MDu.), *den sak krijgen,* to get the sack (NED). I do not know if English linguistic feeling really associates this locution with the old noun *sack* 'bag'.

9.34. *The Problem of Synonyms.* Many writers have assumed that synonyms influence each other in meaning, and also, to explain the influence, that synonyms form associative groups. These would then be a kind of correlative group. Hey (ALL 13, 218) speaks of "jene gewöhnliche und allgemeine Beeinflussung der Synonyma untereinander, vermöge deren die Grenzen im Gebrauche sich allmählich verwischen". Falk (Betyd. 99) states that similarity of meaning may be the sole effective factor in abolishing the difference of meaning between words of similar import: partial synonyms become total synonyms.¹)

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¹) Falk gives the two following instances: Norw. *fiff* (Germ. *Pfiff* 'trick') has acquired the secondary meaning of 'finery' through influence from Norw. *puss*

But it is well-known that total synonyms are rare. If it was true that synonyms influence each other in the direction of a levelling out of differences, we should, in view of the very long time during which this tendency must be assumed to have been active, expect to find a large number of total synonyms in every language. As we do not, the levelling-out tendency must be weak or non-existent, or it must meet an opposition that is even stronger (cf. Beckman 123 sqq.).

Falk further says that many notions are in ON represented by a number of words which no doubt primarily possessed differing shades of meaning, but finally fell together, whereafter generally one word supplanted all the others. Some of Falk's instances (l. c. 48 sqq.) are of the following type: "By the side of the prosaic words for 'fight', *orrosta* and *víg*, there were the poetic *boð*, *gunnr*, *hildr*, *hjaldr*, *ímun*, *rimma*, *rósta*, *snerra*, *þrima*, *ørlygi*, etc., and we do not know if there was any difference of meaning between them. During the course of linguistic development the words that were restricted to the poetic language have generally been ousted in the competition, wherethrough our memory has been delivered from many burdens" (I have translated Falk's text literally).

It seems to me quite natural that words belonging to an artificial dialect like the ON. poetic language, and not to popular spoken language, should disappear with the disappearance of the old poetic tradition. Where is there any trace of analogical influence in this process? And if all the words quoted above were at last really used promiscuously, it seems highly improbable that this was the result of mutual analogical attraction. It is much more likely to have been an instance of linguistic and objective uncertainty (cf. 4.17), the result of the disappearance of the old tradition concerning various conceptions connected with fighting, of a profound change in the technique of fighting, and in the outlook on life, during which the linguistic tradition of poetry also disappeared.

Kroesch (Analogy 39) formulates the current opinion in general terms. "A word X with a meaning A, develops from this a meaning B. Thereupon a word Y, also with the meaning A, a synonym, being associated with X, likewise develops the meaning B", the reason being the influence of X on Y, based on the association of the two words. Among the instances adduced by Kroesch, I may quote French *chiquer* 'beat', which develops the meaning 'deceive' and so do likewise *torcher*, *taper*, *estamper*, *toquer*, *craquer*, *aquiger* (Fr. *attiger*), which also meant 'beat' (quoted from Schwob & Guieysse 49 sqq.).

There are several points to be noticed in this connection. First, as I have previously shown, the existence of a group is not the *cause* of an analogy, but merely provides a pattern. The function of speech is the cause. If we assume that a speaker wants to denote the referent P, which is often denoted by the

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(Germ. *Putz* and *Posse*) which has both meanings. But according to Hellquist, Et. Ordbok, it is not certain that *fiff* in the latter sense is the same word. Could it be echoic? Falk further states that Norw. *fundere* 'to found' (L. *fundare*) has developed the meaning 'to ponder' through the influence of Norw. *grunne*, which has both meanings. But according to Hellquist, quoting O. v. Friesen, *fundere* 'to ponder' is derived from a Germanic stem, and has nothing to do with *fundare*. — The instances are therefore not convincing.

word X, meaning B, and also having the meaning A, at the moment irrelevant, his thoughts, in order that the analogy may occur, should in some way be led to the word Y, which means A, but not B — I have retained the symbols employed by Kroesch and assumed exactly the same situation as he does. But when a speaker wants to denote the referent P, and apprehends it as B, and denotes it by X, there is no reason why the thought of the irrelevant meaning A, and its referent Q, and its potential expression Y, should enter his mind at all. And I do not see that this fact can be altered by the assumption of any other plausible situation.

I see only one possible exception to this rule: if the two words in question are in any way specially connected, as for instance if they are members of the same derivational group, but then the case falls under the heading of combinative analogy, and the psychic process is quite different.

With regard to the French argot-words adduced by Kroesch, it is expressly stated by Schwob and Guieysse that the intentional use of synonyms for the purpose of intensification and for making speech less easily intelligible is peculiar to argot. Such intentional, and therefore metaphorical or hyperbolical use of synonyms is something very different from analogy, and falls under the heading of Nomination (ch. 11).

However, if we turn to the core of the matter, there is no doubt about the existence of sets of parallel sense-developments, groups of synonyms which follow the same, or approximately the same lines. Thus, in 7.45 above, I have given a list of 23 English adverbs signifying 'rapidly', all of which also develop the sense 'immediately'. Should we explain this parallelism by analogy?

Analogy presupposes group formation. The first question is therefore: do such synonyms form a group?

The psychological evidence is, as far as I have been able to discover, very meagre. I have only found one statement on the problem, by Jung-Riklin (III 72), and to the effect that synonym responses were rare in their experiments. The tables given by the writers quoted in the present chapter have little to show in the way of synonym reactions.

The contamination between synonyms, occurring in its most extreme and intentional form in the so-called portmanteau-words, has been adduced as a proof of association between synonyms; but this is, I think, a mistake. If a pair of synonyms are confused by a speaker, this does not show that the two words were previously associated with each other, but only that both are associated with the referent that the speaker wants to denote, so that the thought of the referent may call up either word. That is nothing new, and proves nothing.

It has already been pointed out that total synonyms are rare. Synonyms may be defined as words with identical or partly identical referential range, but different semantic ranges. That is to say, they denote the same referents, but each word denotes it in an aspect that somehow differs from the others. When a speaker wants to denote a referent, he is practically always seeing it in a peculiar context, into which one of the synonyms may fit, but not necessarily the others. There is then no reason for these to arise in his mind.[1])

The reason for the parallelism of sense-changes has to be sought in another quarter. If we knew nothing about the actual history of the adverbs just mentioned (7.45) the series might be regarded as an excellent instance of the analogy hypothesis. But on a closer study of the words we find that an indispensable condition for the change from 'rapidly' to 'immediately' is the use of the adverbs in a definite context, and we find that this context recurs in every single case. If the change was due to analogy, that would not be necessary: the association with the synonyms would of course exert its influence equally in any context. We conclude, then, that parallel developments are due to similar circumstances, just as parallel phonetic changes affect all sounds of one kind in a specific position. It is natural that synonyms should be used in similar contexts, which are the expressions of similar mental content, and denote similar referents. It is then to be expected that the semantic consequences should be similar.

Three more observations may be made. If the cause of a change like that of 'rapidly' to 'immediately' could be analogy, it is reasonable to assume that the tendency would at least not grow weaker as more and more words acquire both meanings. But we find that the tendency to the change ceases altogether at some time during the late Middle Ages. This is inexplicable if analogy is a strong factor in semantic change.

Further, if the fact that the word X has the meanings A and B, makes the word Y, with the meaning A, assume also the meaning B, would it not also make words with the meaning B assume the meaning A? In other words, is there any reason why the analogy should not work both ways? Returning, again, to our English adverbs, we find the remarkable fact that there is not a single instance of a change from 'immediately' to 'rapidly'; and the same state of things has been found to exist in German (Stern, Swift 218 sqq., and Sandegren 106).

Finally, if synonyms form associative groups, and therefore influence each others' meanings, it is reasonable to assume that they should also influence each others' form, gender, etc. as do the members of other correlative groups. I have quoted in 9.13 a number of such groups, and the additional material available in the various handbooks is considerable in quantity; in it synonyms are conspicuously rare. This is inexplicable if they form groups. But if they do not, *i. e.*, if they are not especially associated with each other, how could they influence each others' meanings?

I think I am on firm ground in questioning the assertions of Kroesch and other writers. A bare list of parallel semantic developments, plus an assertion that the parallelism is due to analogy, is not evidence. There is no trace of analogical influence in the series of adverbs which I have quoted, in spite of the fact that they seem to offer an ideal ground for such activities — if the current assumptions were correct. Until more evidence is brought forward I think I may leave the question of synonym groups aside, as not proven.

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[1]) Anyone who has worked at cross-word puzzles can testify that synonyms are often very difficult to recall.

9.35. *Wundt's Korrelative Laut- und Bedeutungsänderungen.* Wundt speaks of correlative phonetic and semantic changes, by which he means cases in which a word is differentiated phonetically into two forms, to which different meanings attach themselves — so-called doublets. The phonetic differentiation is, according to Wundt, always the prior process. If a word A splits into two, B and C, and we denote the meanings of these by *a*, *β*, *γ*, then the semantic differentiation into *a*, *β*, *γ*, is always posterior to the phonetic differentiation into A, B, and C; although, of course, the notions *β* and *γ* may have existed previously. The parallelism of sound and meaning cannot emerge until both sounds and meanings have become distinct. There is often a period of unsettled usage previous to the definite association of each form with a meaning of its own (Wundt II 462 sqq.). Instances of this type are of interest to the present study only when, after the differentiation, one of the forms can be shown to have influenced the other. It is necessary to discuss the various types. (Cf. Weekley, Words 139 sqq. on doublets).

It might be remarked, first, that the priority of the phonetic differentiation is not absolute. In the English words *of* and *off*, the distinction between the prepositional and the adverbial meaning existed before the phonetic differentiation, which is, on the contrary, a consequence of tne semantic difference, since *of* is the unstressed prepositional form, and *off* the stressed adverbial form. There are many instances of this kind (cf. Fowler, MEU, s. v. Differentiation).

Delbrück (Grundfragen 154 sqq.) denies the existence of a correlative change in Wundt's sense, and he is no doubt right in one way: there is no direct symbolic value in the sounds of words, as Wundt attempts to vindicate for *Rabe-Rappe* (Wundt II 476). But there are more than the two types mentioned by Delbrück. I follow A. Erdmann (Dubbelformer) in his classification, and I refer to his lists for additional instances (see also Greenough & K. 345 sqq., and cf. Stöcklein's remarks 75 sqq.)

Many of Wundt's instances are of the type *chose-cause*, *frêle-fragile*, *raide-rigide* (l.c.II 463), that is to say, one of the forms represents an unbroken development from Latin to French, the other is a loanword. As far as I can see, the development of each of these forms is in no way remarkable. If the forms happen to be similar, and their meanings also resemble each other, reciprocal influence is of course possible, but as I have shown in the previous section, the likelihood that synonyms influence each others' meanings is not great. English instances of this type, in which the development of each form takes place in isolation from the other, and leads to more or less different results, are *chance* and *cadence; corps* and *corpse*, which have now no sense in common; *copula* and *couple*, in which pair *couple* has been used sometimes to render one of the technical meanings of *copula*, but which are otherwise separated in sense; *choir* (*quire*) and *chorus*, on the other hand, are partial synonyms, the reason possibly being, as in *couple*, the employment of the English form to render the Latin. *Hale* and *whole* are a parallel instance, in which the Northern form *hale* has been taken up into standard English in a sense that is foreign to the normal form *whole*.

In none of these cases have I been able to find conclusive proof of semantic influence one way or the other, except in the manner indicated for *couple* and *choir*, that is to say, an intentional substitution of one form for the other.

If doublets are due to the levelling out of different forms in the paradigm, as for instance *belly* and *bellows*, *hole* and *hollow*, *F. plier* and *ployer*, they are at first total or almost total synonyms, but the difference of form facilitates different semantic development. Thus, *hole* has all the senses of *holl* (*howe*) sb. and *hollow*, sb., with a fuller development of its own. *Shade* and *shadow* have many different senses; a third variant form, *shed*, is assumed by the NED to be influenced by the synonymous *shud*, and shows a distinctive semantic development. *Morn* and *morrow*, *harry* and *harrow*, are also differentiated in meaning.

If the doublets are due to different stress of one word, as for instance *of* and *off*, *through* and *thorough*, it is evident that the semantic differentiation is prius, since it is the cause of the phonetic differentiation through strong and weak stress. There is no correlation, in Wundt's sense, until the phonetic process has set in. It would need a very thorough investigation to decide if a certain sense is due to independent development or to influence from the correlative word. In *a*, *an*, *my*, *mine*, and other pairs, there is a phonetic differentiation, due to different position, without any differentiation of basic meaning.

Engl. *then* and *than* represent still another type. Forms with *-e-* and *-a-* were used promiscuously as adverb and conjunction in OE and ME. "When the adverb was reduced to *þen*, from the 15th c. spelt *then* (sc. instead of the fuller form *þenne*) there was a strong tendency to spell the conjunction in the same way; but in the 17th c. the tide turned, and by 1700 or a little later the conjunction was differentiated from the adv. as *than*. As the latter was, and is, pronounced [*ðən*], it is manifest that it might be written either *then* or *than* with equal approximation to the actual sound" (NED). It is reasonable to assume that such a differentiation of form and meaning is due to printing practice, to the influence of leading writers, or to the influence of standing phrases in which one or the other form is traditionally used. There is no proof that the two words have influenced each other's meaning.

We have, finally, pairs of doublets in which one word is the regularly developed form, the other an analogical formation, for instance *last* and *latest*. The connection with the positive *late* is more strongly felt for *latest*, which is no doubt the reason why *latest* refers to time, and *last* to order of succession. *Latest* is an instance of morphological combinative analogy. *Brothers* is the usual plural of *brother*, formed analogically, while the old form *brethren* has been retained in some transferred senses, probably because of its use in religious phraseology. A Swed. parallel is *klädning* and *klänning*, from the verb *kläda* 'to dress'. The latter represents the normal development of an older *klädning*, with assimilation of *-dn-* to *-nn-*, and keeps the concrete meaning 'dress'. The former is a new formation on the analogy of other participial nomina actionis, and has the abstract sense of 'dressing', owing to its closer association with the parent verb *kläda* (Noreen, Orddubletter 111). Germ. *Reiter* and *Ritter* (Wundt II 464 and 476) belong here.

In the last type we thus have combinative analogy (morphological) leading to the creation of doublets. In the other types there is no trace of analogy, if we do not want to call by that name the levelling out in the paradigm represented by *belly-bellows*, etc.

With regard to the principal question, that is to say, the question as to whether words belonging to such pairs influence each others' meanings there is no reliable evidence. As far as I know, the history of no such pair has as yet been investigated in detail. On the whole, I do not think that influence of this kind is likely to have been effective on a large scale. When two words have once separated, as *harry* and *harrow*, they are partial synonyms, and I have already shown that reciprocal semantic influence between synonyms is probably not strong. Even if they are felt as belonging to the same derivational group, that is not sufficient cause for analogical influence to be effective. But it is not possible to state anything with certainty as long as the actual historical facts of the case are not on the table.

9.4. Phonetic Associative Interference.

9.41. *Preliminary Remarks.* Phonetic associative interference differs in several ways from the two types of analogy previously discussed. Combinative and correlative analogy were conditioned primarily by semantic similarity, while phonetic resemblance, where it occurred at all, played an inferior part. Associative interference is based primarily on phonetic similarity, although it seems that some semantic resemblance, or at least connection, is necessary. Combinative and correlative analogy consist in the filling out of an already existing semantic group, and the existence of such groups is a condition of the process. Associative interference affects words that are not, or are not felt to be, members of any group, and on the basis of phonetic resemblance connects them with a better known word, or group, so as to give them a certain support for the linguistic feeling of the speaker. It thus leads to the formation of groups that are not historically justified.

Combinative and correlative analogy are of the type (described in 7.34) in which the change is effected by the speaker, who uses a word in a new way. The hearer's part is to understand the novel use of the word. In associative interference, as in permutations and adequations (cf. 7.34), the change is the result of an association that offers itself both to speaker and hearer in the use of a word or phrase, an association that may be accepted if found serviceable (cf. Shand 70, on the laws of association and organization).

It might be asked if, when there are so many and so essential differences between associative interference and the two other types of analogy, we are justified in taking them together in one class. In so doing, I think I am in agreement with the usual practice among philologists, and, even if the analogy is different in nature and rests on a different basis, it is still a kind of analogy.

9.42. *Phonetic Resemblance as a Cause of Association.* Since associative interference consists in group formation on the basis of phonetic resemblance, it is necessary to investigate the part played in associations by the phonetic elements of words, as compared with the semantic elements, which play the most important part in the combinative and correlative forms of analogy. Various experiments have been carried out, which show that there are two main reasons for phonetic associations (*Klangreaktionen*). One of them is deflected attention; in ordinary circumstances it is the meaning of the stimulus words that determines the response (cf. 9.13), but when attention is deflected owing to fatigue, carelessness, hurry, etc., similarities of sound are apt to take the place of meaning as determining the reaction (Cf. Jung-Riklin IV 25, with a convenient summing up of the position. Dauber 197 sqq., Menzerath, Rignano 349, Claparède 243—244). Phonetic reactions in the shape of repetition (*Nachsprechen*) are well-known in infant speech (W. Stern, Psych. 130). It is not probable that this factor is sufficiently common in the speech of adults to influence linguistic development to any appreciable degree.

The second main reason for phonetic associations is the lack of known meaning in the stimulus word. When Dauber used nonsense syllables as stimuli, phonetic similarity was absent only in 3—5 % of the responses, while with meaningful words such similarity was absent in nearly 77 %; it is of course not altogether to be avoided owing to the limited number of sounds in the language. Most of Dauber's observers (12) preferred rhyming responses; four of them preferred alliterative responses, and eight responded with words having the same suffix as the stimulus. The tendency to identify nonsense syllables with some known word may be so strong as to make useless all attempts to induce a neutral attitude on the part of the observer, or to get a purely mechanical response from him (Helson 37, 47. Cf. Stern, Kindersprache 143).

Whether phonetic resemblances play a part in combinative and correlative analogy is as yet uncertain. Thumb's investigations (G. R. M.

III) have given a negative result, as also those of Eberschweiler (Zs. f. Psychiatrie 65, 240 sqq., esp. 246—247). It is only in the case of foreign or otherwise unknown words that the form seems to play a more important part. That the tendency to phonetic associations is strong in the case of unknown or incomprehensible words has also been demonstrated by Wartensleben (Zs. f. Psych. 57) and Peters (ib. 56). Meaningful responses to nonsense syllables are generally determined by sound.

Esper (Exp. Inv. 46) concludes that tendencies towards associative interference in the form of contamination were strongest when the linguistic material deviated from English habits of syllable division. Bally (I 34) has pointed out that in learning a foreign language we are liable to attend more to the form than to the meaning of the words, because the latter requires a greater effort. The better the meaning of a word is known, the more do the associations attaching to the meaning tend to exclude those that attach themselves to its form, and, conversely, the lack of associations with the meaning of a word leaves the field open for associations of form or even of sound.

Hey (ALL 13, 203) states that words belonging to the present type are mostly lacking in linguistic or in objective support. The former are words not belonging to any semantic group (basic group); the latter are words lacking an easily recognized and in itself clearly defined referent, as tree, house, sea, stand, sleep, long, black, over, left, etc. Archaic words are therefore especially exposed to associative interference, as well as form-words, words for relations, articles and pronouns. In my opinion, a strong linguistic tradition, founded on frequent use, is the best safe-guard for a word, while rare isolated words are liable to be influenced even if they denote referents of the kind mentioned by Hey (cf. Paul, Prinz. 111, 217 sqq.)

The fact that homonyms exist in large numbers without any tendency to confusion is a warning against hasty assumptions of phonetic a.ssociation. I may quote the case of the two English verbs *to let,* OE *lǣtan* and *lettan,* the latter meaning 'to prevent'. They partly fell together in form in ME, and if formal co-incidence were sufficient to cause mutual semantic influence, the circumstances were highly favourable. But the only point where the NED assumes such an influence to have taken place is where the *meanings* of the two words approach each other, from different starting-points, and by a development which might just as well have occurred in each even if the other verb had not existed.

Let from *lētan* signified, among other things, 'to leave undone, to omit or forbear to do something, to desist, forbear'. *Let* from *lettan* had the senses 'to check or withhold oneself, to desist, refrain'. Here the two verbs were naturally confused, but the confusion does not seem to have touched their other senses. In the same way, the mutual influence of *bless* and *bliss* rests on similarity of meaning (see NED, s. v.).

Phonetic interference is to be assumed when a word for some reason — foreign origin, dialectal origin, rare occurrence — is strange to speakers, which makes them involuntarily attempt to associate it with some known word or word-group, in order to procure a support for its meaning. But if the referent and meaning of a word are well-known, owing to sufficient frequency, so that it is well established in the memory of speakers, it can very well exist without the support of a group.

To this type belongs so-called popular etymology, which is also one of the most popular subjects of writers of popular books on philological questions. I refer for literature and instances to the current handbooks and to the following works: Paul, Prinz. 218 sqq, B. I. Wheeler, Nyrop IV 322 sqq., Jespersen, Gr. a. Str. 69, Falk, Bet. 103, Noreen, Spr. Studier I 38, Sundén, Ell. Words 144; Östberg 75 sqq.¹) Stern, Kindersprache 417 sqq. gives lists of childish etymologies.

9.43. *Change of Meaning, but not of Referent.* Various classifications have been proposed for sense-changes of the present class (Falk, Betyd. 97 sqq., Hatzfeld, Bed.-versch., Hey, ALL 13, Kjederqvist, who also gives a historical sketch)²), but most of them include types which have already been placed in the previous sections; many of the instances classed, moreover, do not involve any appreciable sense-

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¹) The following is a curious instance: E. *redshire, redshare* or *redshort* is an adaptation of Swed. *rödskör(t*, from Swed. *röd* 'red' and *skör(t* 'brittle', and denotes iron that is brittle while in a red-hot condition owing to excess of sulphur in the metal. Similarly *coldshort* 'brittle in its cold state', of which the NED says: "This, and the parallel *redshort* . . . point by their early forms to adoption c. 1600 from Scandinavian, and prob. from Swedish, metallurgical terminology". If the words are associated by linguistic feeling with the common English adjective *short* (cf. NED s. v. 20 and 21), this seems to be a folk-etymology, which would belong to the present type.

²) Both the types described by Wundt (I 474 sqq.), *Wortassimilationen mit begrifflichen Nebenwirkungen*, and *Wortassimilationen mit Begriffsumwandlungen*, belong here, the difference between them being one of degree only. Wundt has no instance of my other type, in which the referent also is changed.

change. I prefer to make a fresh distinction, between associative interference leading to a change of meaning, but no change of referent, and associative interference leading also to a change of referent.

In the first type, the association, on a phonetic basis, of the word with another word leads to a modification of the manner in which the referent is apprehended, but the referent itself remains in fact the same. *Sandblind* is probably a perversion of OE *sam-blind* 'half-blind, dim-sighted, purblind'. The first syllable, at a later period, became incomprehensible, and was interpreted as *sand-*. Cf. Johnson's explanation in his Dictionary: "having a defect in the eyes, by which small particles appear to fly before them". The noun *standard* has been affected, in many of its senses, by an association with the verb *to stand;* it is possible that in some uses it should be regarded as an alteration of *stander*. *Brothel* originally signified 'a worthless abandoned fellow, wretch, scoundrel; an abandoned woman, a prostitute'. In the combination *brothel-house* it was confused with the synonymous *bordel, bordel-house*, so that the simplex *brothel* was apprehended as identical with *bordel*, and so received the meaning 'house of ill fame'.

Bully 'tyrannical coward who makes himself a terror to the weak' is in the popular etymological consciousness now perhaps associated with *bull*, sb. (NED). Note that the verb *bullock* occurs in the sense of 'to bully'. E. *welcome* is from OE *wilcuma*, of *wil* or *will* 'pleasure, desire', and *cuma* sb. 'comer, guest'. Subsequently the first element was changed to *wel- well-*, and the second identified with the imperative or infinitive of the verb *come*, under the influence of OF *bien venu, bien veigniez*, L. *bene venisti, bene venies*, and possibly also of Scandinavian forms. As far as can be gathered from the NED, this change may have been instrumental in abolishing the nominal sense 'one whose coming is pleasing', and possibly also in developing the vocative use as a form of address. *Andiron* is from F. *andier*, Modern F. *landier*, "In Eng. the termination was at an early date identified with the word *yre, yren*, iron, whence the later illusive spellings *and-iron, hand-iron*. Instances also occur of *land-iron*, after later Fr." (NED).

Wundt quotes German *Friedhof*, which is now, to German linguistic feeling, definitely associated with *Friede* 'peace'. The word is in MHG *vrîthof* 'an enclosed court'. Similarly *Sündflut* 'the Deluge' is associated with *Sünde* 'sin', but the original form is *sin-vluot* 'a general flooding' (Wundt I 480, with numerous instances). F. *courte-pointe* is from

OF *coute-pointe*, of *coutte*, a variant of *couette* 'covering', and *pointe*, past participle of the verb *poindre* 'piquer'. It has been apprehended as being a compound of *courte* 'short' and the noun *pointe*. OF *soufraite* 'privation', L. *suffracta*, from *sub-frangere*, has given *souffreteux*, which has been associated with *souffrir*. *Lais* is verbal noun from *laisser*, but is now associated with *léguer* 'to leave by will'; it is written *legs*, and sometimes even pronounced so. (Saussure 119, 238, with numerous instances).

As thin as a wafer: the noun originally signified 'thin crisp cake', but the expression is now commonly associated with the sense 'a small disk of flour mixed with gum and non-poisonous colouring matter, or of gelatine or the like similarly coloured, which when moistened is used for sealing letters, attaching papers, or receiving the impress of a seal'.

ME *start* 'tail' was used in the phrase *start naked*. When *start* became obsolete (the last quotation in the NED is from 1300), *stark* was substituted. We find *stark* used as an intensive in ME: *stark blind* 1387, *stark dead* 1375. It is therefore not impossible for *stark naked* to have originated without any association with an earlier *start naked*.¹)

9.44. *Change of Both Meaning and Referent.* *Belfry* originally has nothing to do with bells, but denoted a 'tower used in attacking fortresses'. Owing to the association of the first syllable with the word *bell*, *belfry* is now used almost exclusively to denote a tower containing bells. *Shamefaced* is a remodelling of *shamefast* 'modest, bashful', and the association with *face* has changed meaning and referent, so that the word now means 'showing shame in one's face'. *Dispiteous* 'unpitying' is a revival or contamination of earlier *despite-ous* 'full of despite' (see

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¹) Jespersen (Language 172) thinks that the use of *stark naked* for *start naked*, as well as *mate* 'husband or wife', for *make*, *milt* 'soft roe of fishes' for *milk*, *bat* 'vespertilio' for *bak*, *trunk* 'proboscis of an elephant' for *trump*, and others, are due to confusion in the minds of children. As in the case of *stark* for *start*, the displaced word seems to be without supporting associations in the relevant meaning, and this fact is, I think, a sufficient explanation for the substitution, without having recourse to childish ignorance. Very few grown-up people have any knowledge of etymology and foreign languages. I regard all these instances as ordinary cases of popular etymology. Childish corruptions are, of course, numerous, but they cannot be expected to find their way into the standard language since they are laughed at and corrected by the grown-ups. Jespersen gives instances of this kind (l. c. 122). It will be evident that they are of another type. Cf. 7.42.

Fowler, MEU s. v. Revivals). *To curry favour,* originally *to curry Favel,* F. *estriller* or *torcher Fauvel* 'to curry the fallow horse', from Roman de Fauvel (1310), the hero of which is a counterpart of Reynard the Fox. It is not clear whether before the date of this poem a 'fallow' horse was proverbial as the symbol of dishonesty. The phrase originally meant 'to use insincere flattery'. Later, it was transformed to *curry favour* 'to seek to win favour, or ingratiate oneself with another' (NED. Jespersen, Language 173). *Watershed* is originally 'the line separating the waters flowing into different rivers or river basins; a narrow elevated tract of ground between two drainage areas, = water-parting'. It is also employed "loosely" (NED) for 'the slope down which the water flows from a water-parting', or for 'the whole gathering ground of a river system'. The original meaning is perhaps from German *Wasserscheide,* which became common as a scientific term about 1800. The earliest instances of *watershed* (in this sense) are from 1803. The new meaning is probably due to association with the verb *to shed*: the watershed is the area in which the water that flows into the river is shed or dropped. Cf. Fowler, MEU s. v.

To pester is at first 'to clog, entangle, embarrass' etc., and is apparently an aphetic form of *empester, impester,* although these are only found later than the simplex. It was influenced in its meaning by *pest,* and so came to mean 'to annoy, trouble, plague' (Weekley, Words 167).

"In the seventeenth century, *ingenuity* had still its proper meaning of 'ingenuousness' or candour. Locke, for instance, could speak of an opponent's mode of argument as "more creditable to his acuteness than to his ingenuity", which to modern ears sounds like a distinction without a difference. But long before Locke's time the adjectives *ingenious* and *ingenuous* had become confused in popular use; even some very learned writers (or at least their printers for them) occasionally fell into the mistake of substituting the one for the other. Hence the noun *ingenuity* was often ignorantly or carelessly misused for 'ingeniousness' or 'ingeniosity', and as these latter are both awkward words, while a noun answering to *ingenious* was more frequently wanted than one answering to *ingenuous,* the wrong sense ended by expelling the right one from the language" (Bradley, Making of Engl. 206).

CHAPTER X

CLASS III. SENSE-CHANGES DUE TO SHORTENING

10.1. Theoretical Discussion.

10.11. *Preliminary Remarks.* It is only in a minority of cases that shortening leads to a sense-change. Shortenings that do not lead to a sense-change are of inferior interest to the present study, but it is necessary to include them in the theoretical discussion.

The problem of elliptical or brachylogical expressions has been the subject of much controversy. I shall have occasion in the course of the present chapter to mention some variant opinions, but many disputed questions may be passed over in silence, since they do not concern the problem of sense-change and thus fall outside the scope of my investigation.

It is a regrettable fact that we are more handicapped by lack of material with regard to shortenings than in any other of the classes treated here, perhaps with the exception of adequations. For all that has been written on ellipsis, it has occurred to no one to make a *historical* study of some representative group of elliptical or shortened expressions of the kind that involve a sense-change.¹) The matter is of some importance, since it is often doubtful whether we should ascribe a change to shortening or to some other cause.

The shortening in question is primarily a morphological process, the dropping out of some significant element or elements of the verbal form in the course of linguistic development. When the term is interpreted in this way, we can speak of shortening only with regard to expressions that *have* a history. This is the case, in the first place, with single words; secondly, with what I shall call *habitual combinations*,

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¹) For literature on the subject, see especially Wellander, Studien II 96 sqq., and Horn, Sprachkörper 124 sqq.

in contradistinction to *occasional combinations*.[1]) Instances will be given below.

Historical shortening may occur in occasional combinations in certain circumstances; an occasional combination may be constructed on a sentence-scheme which can be shown to originate from an earlier, more complete scheme (see 10.14). Such a combination cannot be traced back to an individual prototype, but the scheme on which it is built could not have become what it is except through the omission of some element or elements. Such combinations are, for instance: *he went to his uncle's*, *it costs five and six*. The omitted words are not always the same, but vary from instance to instance. Sundén (Ellipsbegr. 217) calls this *typical ellipsis*, because it is the type that is shortened, and distinguishes it from *individual ellipsis*, in which it is a habitual combination that undergoes shortening (see further 10.14).

As explained above (4.27, 5.51—5.53, 6.32) no expression is ever really "complete" (cf. Paul, Prinz. 313—314). Completeness of expression is a matter of degree; some expressions are definitely of normal completeness; others quite as definitely shorter than normal. The first task for the theoretical discussion is to find a criterion for determining what expressions should be reckoned as incomplete or shortened.

Four possibilities present themselves. We may compare the expression, as it stands, (1) with its referent, or (2) with the mental content that serves as its meaning; or (3) with other, more complete expressions for identical or similar mental content, or (4) with its own form at an earlier stage of development. Each of these possibilities will have to be discussed. On essential points, I make use of the arguments adduced by Sundén in his essay *Om ellipsbegreppet*, to which I refer. It is necessary to state at once that I shall distinguish two main types of shortening, *clipping*, or the shortening of a word; and *omission*, or the total dropping of one or more words. The terms will be more precisely defined below.

10.12. *The Referent as the Criterion of Completeness.* It might be possible for an expression to be considered incomplete in relation to the referent which it serves to denote.

With regard, first, to clippings, or shortenings of single verbal symbols, we have to remember that a symbol — with the exception of echoic words — does not picture or mirror its referent, and there is thus no sense in speaking of the shortness of a symbol in relation to its referent. Simple symbols, *e. g.*, *war* and *peace*, may symbolize referents of immense complexity. (See 4.27 and 5.51).

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[1]) The distinction corresponds more or less to Wellander's distinction between *semasiologisch einheitliche Verbindungen* and *semasiologisch lockere Gefüge* (Studien II 97).

Turning, secondly, to the total omission of words, the relation between what is actually expressed, on the one hand, and the referent, on the other hand, cannot give any reliable guidance in distinguishing complete and incomplete expressions. No phrase is ever a really "complete" symbol of the referent that it serves to denote, in the sense that each item, or at least each important item, of the referent is symbolized by a separate verbal element. The speaker always leaves much unsaid, and the hearer has always to supplement what he actually hears with numerous items from the context, including signals.

Speech is above all a practical means to an end, and to make it too elaborate would be to defeat its own purpose. The speaker's interest in the elaboration of the verbal form ceases at a point beyond which the effort would absorb an unreasonable amount of the mental energy, encroaching on the attention given to the topic of speech, without in any way improving the effect. An artistic drawing in which the salient features of an object are alone represented, may give a better idea of the object than a photograph that reproduces every detail. Mutatis mutandis, the same holds true of speech (Cassirer, Phil. III 44). On n'a pas besoin d'exprimer dans le language ce qui ressort nécessairement des circonstances (Nyrop IV 59. Cf. Bühler, Krise 40, Paul, Prinz. 313—314). Incompleteness of speech as compared with its referent is the normal thing; completeness is never attained and is not desirable. The incompleteness in this respect is a matter of degree; there is an unbroken series from a normally full expression to a lift of the eyebrows, "speaking volumes". At no point is there any possibility of drawing a definite line that might separate complete from incomplete expressions.

10.13. *The Mental Content as a Criterion of Completeness.* Since the mental content of any expression is the user's apprehension of the referents, it is evident that what has been said in the previous paragraph concerning the inadequacy of the referent as a criterion of completeness must apply also to the mental content. We never express in words every detail of the mental content that we want to convey.

However, since theorists have hitherto mainly worked with word and meaning only, there have been many attempts to prove that shortness or ellipsis is equivalent to an incomplete rendering of the mental content, or, rather, in some instances at least, of the supposed mental content. Such theories are found even in modern works, and it is therefore necessary to give a brief review of some relevant questions.

The two main points of view may be called the logical and the functional points of view.

(1). *The Logical Point of View.* Expressions have sometimes been called incomplete because they did not contain all the words that were thought to be required for a logically complete rendering of the mental content.

The fundamental weakness of this criterion is the fact that there is no norm of logical completeness (cf. Sundén, Ellipsbegreppet 213 sqq.). Many items which, on a formal logical analysis, are necessary links in the chain of thought, are habitually left undenoted; nevertheless, the expression is not felt to be incomplete in any way; on the contrary, a logically complete expression would often be unusual, or even abnormal. Hearers are accustomed to the shorter type, but not to the longer one. We do not miss a sign for the relation between the two elements in *horse-shoe* or *snow-boots*, because we know enough of these words and their referents to interpret the complex symbols correctly (cf. Paul, Prinz. 320). Nor do we miss a link in an instance like the following: *I shall be at A to-morrow, so I shall not be able to meet you*, where the impossibility of being in two places at once is a logically indispensable premise for the conclusion. There is no reason for assuming that language was formerly more strict on this point (cf. Lerch, Satzglieder).

Phrases of the type *would you like red or white roses?* have been termed elliptical on the ground that a logically complete phrase would run *would you like red roses or white roses?* It seems to me of very little value for linguistic purposes to apply such points of view (cf. Sundén, Ellipsbegr. 215). Speech is a practical means to an end and should be judged by its own laws only.

It might be argued that *white roses* and *red roses* denote two different referents, that there is a factual duality of referents, and that we must assume speaker and hearer to think of, or refer to, roses twice; consequently there is a factual psychic duality, and the logical claim is justified. But note that the sentence in question does not say *white* *roses or red roses;* it proposes, primarily, a choice between two colours. *Roses*, the word we are discussing, comprises both the red and the white kind. The adjectives particularize the two colours between which the hearer is invited to choose; the noun denotes the genus to which the two species belong. The assumption of two distinct referents for *roses* seems to be a mistake, introduced by the reformulation. I prefer to follow Paul in classing such phrases as cases of *einmalige Setzung mit zweifacher Beziehung* (Prinz. 314). That is, primarily, a syntactical analysis, but it seems applicable also from the psychological point of view, and with regard to the actual referents.

From the historical point of view which I have adopted (cf. 10.15), we have to regard the sentence scheme on which phrases like *red and white roses* are formed, as equally primitive and normal as more complete schemes; they are alternative methods of formulating mental content of a certain kind. One of these schemes is undeniably shorter than the other; it is also more common. If we like, we may call such phrases *short;* they should not be called shortened. If we like, we may also term them elliptical; it all depends on the definition of that term. If we do, a strict distinction must be established within the category of elliptical expressions, between ellipses that show historical shortening, and ellipses that represent shorter alternative schemes.

The logical criterion is not applicable to clippings, and thus fails in one important respect.

There are also one-word sentences, as *Fire!*, which are no doubt instances of what Wellander calls *ursprüngliche Kürze* (see 10.5), and which should not be called shortened. Brugmann (Verschiedenheiten 16) quotes *Guten Tag!* and *Du!* (threatening), and thinks that it would be a mistake to call them elliptical. Intonation, situation, and gestures supply what is not expressed in words. The syntactical incompleteness is unimportant. The shorter expression is comprehended as it is intended, just as well as a more complete phrase. Brugmann suggests that we should distinguish *Kurzsatz* and *Vollsatz*. Logically, sentences of this type are of course unsatisfactory, but since there are all degrees between complete and incomplete, we can nowhere draw a line.

(2) *The Functional Point of View.* An expression has sometimes been called incomplete because it was assumed that the hearer, in order to comprehend it, would have to supplement certain elements without which the expression would not be a sufficiently complete rendering of

the mental content it was intended to convey. We may call this the functional point of view, since it evidently suggests that the phrase could not, without the supplementation, perform in a satisfactory manner the communicative function of speech.

This theory covers, in part, the same ground as the logical theory, but is still more open to objections. First, according to the views adopted in the present work, the hearer *always* supplements that which is communicated, by mental material from his own knowledge and observation; it does not seem possible to draw anywhere a definite line which would separate from the great mass of supplementations, the cases where the supplementation is a consequence of incompleteness. Allusive expressions may be very short indeed, compared with what they are intended to convey; *veni vidi vici* is a case in point. But that phrase is not shortened or elliptical. (Additional instances, see Bain I 48—49).

Secondly, the theory does not take into account the part played by reference. Wellander, quoting a passage in which the brothers Grimm are spoken of, first by their full names, and later only by their first names, *Jacob* and *Wilhelm*, states, "demnach ist die Ellipse nicht nur eine Auslassung, sie begreift zugleich eine Ergänzung mit ein: das gemeinsame Glied kommt bei partieller Ellipse nur in einer, bei totaler in keiner der korrespondierenden Verbindungen zum Ausdruck, wird aber trotzdem *jedesmal mitgedacht.*[1]) Das im Satze zurückbleibende Glied der Verbindung wird also semasiologisch in der Weise ergänzt dass das andere Glied der Verbindung, obgleich unausgedrückt, *mitverstanden wird*"[1]) (Wellander, Studien III 1—2).

I am unable to comprehend what purpose would be served by supplementing mentally the surname *Grimm* or its meaning; both speaker and hearer know perfectly well what persons *Jacob* and *Wilhelm* refer to when these names are mentioned the second time, and no more is needed. Our mental processes are extremely averse to unnecessary détours, and are always seeking short cuts; when adequate reference is provided and the context expresses the speaker's intentions, the functions of speech are filled, and there is no reason for assuming a supplementation which would serve no useful purpose. The third method (3 a) described in 10.16 would probably be employed in a case like this.

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[1]) My italics.

The comprehension of the shortened expression is based on *verbal* context (cf. 10.17).

Thirdly, it might be objected to the present theory that it gives undue prominence to the communicative function of speech. The symbolic, expressive, and purposive functions might claim, equally, to be taken into consideration, and that would evidently complicate matters too much.

Fourthly, it is, after all, the *speaker* who produces whatever shortenings occur; their causes and criteria should not be sought in processes in the *hearer's* mind.

The functional criterion is based on ignorance of the normal processes of comprehension, in that it assumes supplementation to take place only when a sentence is shorter than normal; but since supplementation *always* occurs, it obviously cannot furnish a criterion for shortenings (cf. Sundén, Ellipsbegr. 199 sqq. with further references).

10.14. *The Sentence-Scheme as a Criterion of Completeness.* An expression might be considered incomplete when lacking one or more words usually employed in expressing mental content of a similar kind; in other words, if the expression is constructed on a more concentrated sentence-scheme than is commonly the case.¹)

This point of view looks more promising, since in not a few cases it is really the contrast between a phrase and the habitual sentence-schemes that makes us feel or suspect an omission. Telegraphic language is an instance in point.

When we regard as shortened the phrases *I am going to Smith's* (*St. Paul's, the barber's*), *it costs two and six, gib mir den Schwarzen, donnez-moi le noir,* (in English a prop-word is used for the omitted noun in such cases), the reason is, obviously, syntactical. According to "normal" syntax, which is equivalent to habitual sentence-schemes, or language-forms, we are accustomed to find, after a genitive, a word denoting that which is owned by the referent of the genitive; after an attributive word we expect a word denoting the possessor of the quality or characteristic denoted by the attribute. The words pronounced involve a relation to some other, correlative, word — but the correlative

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¹) Sundén (Ellipsbegr. 213) takes this criterion together with the logical point of view, describing it as a comparison with "den morfologiska utstyrsel en betydelsekategori normaliter äger".

word is omitted. The lack of an immediate correlative constitutes a criterion for *typical* ellipsis.

On the other hand, it will not do to compare the following phrases in the same way: *would you like white roses or red roses?* and *would you like white or red roses?* It is true that the two phrases represent two degrees of completeness, but neither of them is *syntactically* incomplete, in the strict sense of that word. They are equally normal, and the first is probably less frequent than the second. We must apply here Paul's verdict: "misst man allemal den knapperen Ausdruck an dem daneben möglichen umständlicheren, so kann man mit der Annahme von Ellipsen fast ins Unbegrenzte gehen. . . es gilt diesen Masstab aufzugeben" (Paul, Prinz. 313). As a matter of principle, it should be noted that the existence of two synonymous and similar expressions, one of which is more complete than the other, does not necessarily prove that the shorter of the two developed out of the other one by the omission of some element. *Assist me on deck* is probably not a shortening of *assist me in getting on deck* (Krueger, Arch. 107, 356; Paul, Prinz. 319). Each case must be judged on its own merits.

The syntactical criterion must be restricted to the dropping out of words or phrases which are immediate syntactical correlatives to one of the words or phrases retained in speech. The correlation involves the consequence that both fundaments of the relation must formerly have been pronounced. In other words, the present, short, sentence-scheme, is the result of a historical development, starting from a more complete scheme. We cannot trace this development for the individual phrases, but only for the scheme.

The syntactical criterion does not cover clippings.

10.15. *Historical* (*Individual*) *Shortening.* We have, finally, the fourth criterion of shortening, the comparison of an expression, as it stands, with its own earlier form. As already pointed out above (10.11) such a comparison can be made only with regard to expressions that have a history of their own, (1) single words, and (2) habitual combinations.

A shortened expression, then, is one which has originated, through clipping or omission, from an earlier, more complete expression; or, as Sundén formulates it (Ell. Words 35; cf. Ellipsbegr. 217): "the first criterion of the elliptical phenomenon that we want to establish, is that it offers an historical abbreviation." This point of view provides an unmistakable criterion as soon as we know the history of the words we are investigating, and that is an indispensable condition for all historical linguistic research. It covers both clippings and omissions in habitual combinations.[1])

With regard to the interrelation of the syntactical and the historical points of view, it is evident that the former does not cover clippings, but that it does cover historical omissions. The strict historical point of view, on the other hand, does not cover typical shortening. The logical and functional points of view likewise often cover omissions, but they fail to provide the necessary limit between shortened and not shortened.

10.16. *The Psychic Process.* With regard to the psychic process in the speaker's mind when producing a shortened expression, we can say little. There is, however, no reason for assuming the process to be essentially different from the "normal" production of speech (cf. ch. 5). We have to assume that the speaker is able to judge, more or less automatically, on the basis of context (which comprises not only verbal context, but also perceptual and mental context of all kinds) what items may be left undenoted without detriment to the adequacy of his speech, or should be left undenoted so as to fulfil the functions of speech even better than a more complete expression would have done. No doubt he is guided by traditional sentence schemes in selecting and using the words that will meet his purpose in the momentary situation, and his long training in his mother tongue will have provided him with the necessary automatic skill. The shortened expressions are apparently of a limited number of types, all of them familiar to both speaker and hearer.

The hearer is similarly equipped. The process of comprehension may be briefly analysed as follows. If a word is clipped, there are three theoretical possibilities. (1) The hearer may, by association of contiguity, re-instate the missing portion of the word, and then comprehend the whole. (2) The remaining portion of the word may be characteristic enough to indicate the referent without recall of the missing part, and without the help of context.[1]) Both these methods of interpretation are instances of the law of association which states that any element that has previously occurred as member of a complex, on being apprehended alone bearing its membership character, tends to reproduce the complex. Such re-instatement may go either of the two ways just indicated, viâ the whole word to the referent and meaning, or directly to the referent and meaning; in the latter case we should perhaps also assume a subsequent re-instatement of the whole word; however, since it would serve no useful purpose it seems probable that in many cases no such supplementation of the missing part takes place. As far as I know, the matter has not been investigated in detail. (3) The hearer may know beforehand, or infer from the context, what referent the stump word or the pronounced part of the original combination is intended to denote; he can thus identify the shortened expression with the full expression, *because it refers to the same thing*. The frequency of this form should not be underrated. Suppose two persons to be talking and one of them to be using the word *bus*, till then unknown to the other. The two situations in which this is likely to happen most often are (a) that the interlocutors are speaking about omnibuses, and of course are aware that they are speaking about omnibuses; any new name applied to that referent will at once be understood by the hearer, because it refers to a thing he knows of; (b) that the hearer will be aware, by the speaker's gestures or looks, that the unknown word refers to that big vehicle which is approaching along the street; and since he sees what that is, he will know what a *bus* is.

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[1]) I may quote the following definitions: "Ellipse ist nicht *die* sprachliche Ausdrucksform, der etwas am *Sinne*, sondern der etwas an *Form* fehlt . . . es kommt nicht darauf an, was heute der Redende denkt, sonder wie jene Form, so wie sie ist, hat werden können." Krueger, Arch. 107, 355. "Unter Ellipse verstehen wir nach § 366.5 die Erscheinung, dass ein Bestandteil einer usuellen Ausdrucksweise, der zur Mitteilung des augenblicklichen Vorstellungsinhaltes entbehrlich ist, unausgesprochen gelassen wird." Brugmann, K.vgl. Gr. § 936. See also Bally, II 278—279.

Since shortenings are very often produced during the course of a speech in which a more complete name has at first been used, the first of these forms of comprehension (a) is of especial importance, and I shall have occasion to recur to it more than once. The shortening is conditioned by mental or verbal context. In the second form (b) the shortening is conditioned by perceptual context (cf. 10.17). The correctness of the comprehension is at once verified by its fitness, or the reverse, to the situation, and the likeness of the stump word to the full name.

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[1]) As pointed out above (6.1 and 6.3) this often occurs even if the whole word is pronounced by the speaker: the hearer notices some characteristic and salient portion of it and that may be sufficient for him to interpret it correctly; he then pays no attention to the remainder. Cf. also Sundén, Ell. Words 52, with quotations from Passy, Behaghel, and Jespersen.

Taking the matter theoretically — we cannot do otherwise as long as we have no special investigations on this point — the method of re-instatement seems more likely to be employed when the referent has not been previously mentioned, but is designated for the first time by the clipped word, and when it is not present to the perceptions, or otherwise contextually indicated. In all other cases the third method would probably be quicker and easier, and thus more likely to be adopted. However, considering the immense variability of the mental processes, we cannot say what may happen in individual cases. It follows that the process of comprehension is useless as a basis of classification, even if we disregard the fact that no such processes occur in the speaker's mind.

The same principles, with some modifications, apply to the comprehension of phrases containing omissions. If the omission occurs in a habitual combination (see on this term 10.22) the method of re-instatement may come into use, but the third method, that of context, is just as likely to be employed here as in the case of clippings. When the omission occurs in an occasional combination, the contextual method is the only one possible; as before, the context may be of any kind.

The theory embraced by many writers, and exemplified above (10. 13.2) from Wellander, concerning so-called supplementation, rests on the assumption that the *words* are the only basis for comprehension and the mental processes involved therein. According to the theory adopted in the present work, a clipped symbol may adequately perform its function of referring to a certain referent, and the *referent* then becomes the basis of the further mental processes, leading to the actualization of relevant items of the hearer's knowledge with regard to it. Similarly in the case of omissions, only with the difference that the reference to the item originally denoted by the word now left out, must always be supplied by context, including inference.

It would seem that, with regard to shortenings, the symbolic function is especially important. An adequate fulfilment of that function will generally imply that the communicative function is also duly filled: the hearer will know what referents are intended. No doubt the expressive and purposive functions may sometimes require words to be used that would not be absolutely necessary for the symbolic and communicative functions; but, on the other hand, the two former functions are in oral speech often filled by signals: gestures, facial expression, and intonation, which are independent of formal shortening. These matters are, as far as I know, not investigated. The fact that the verbal element left out has no absolutely indispensable symbolic function is one of the chief conditions of shortening.

I wish to emphasize that the processes involved in producing and comprehending shortened expressions are essentially the same as the normal processes that have been described in chs. 5 and 6. There is only a varying degree of completeness of expression.

10.17. *The Conditions of Shortening.* The problem of the psychic processes involved in the production and comprehension of shortened expressions is intimately bound up with the question of the conditions of shortening.

Generally speaking, we may say that the use of shortened expressions presupposes a comparatively full context: verbal, perceptual, or mental (cf. Paul, Prinz. 313; and 6.32 sqq. above). When we first speak of *Jacob and Wilhelm Grimm,* immediately afterwards using the first names only, *Jacob* and *Wilhelm,* the shortening is possible owing to the verbal context. Perceptual or mental context may function with similar effect. When the waiter at a Berlin Bierstube asks a guest, "*Helles oder Dunkles?*" the hearer may understand the question because it is what he expects to be asked in that place, or because he sees the two tumblers offered by the waiter; the context is mental or perceptual respectively. Similarly when an English waiter whispers in your ear, during the course of a banquet, *Thick or clear, sir?* or *Sweet or dry, sir?* the former question is referred to soup, and the latter to the champagne, because the diner expects those things at that stage of the entertainment (mental context), and it is mostly unnecessary for him to glance behind him in order to make perceptual context supplement the mental context.

The more speaker and hearer know about the topic beforehand, and the more they agree in their opinion about it, the less need is there of verbiage in order to arrive at a perfect understanding. The operating physician and his trained assistant may work together throughout a long and complicated operation with only a word or a gesture now and then: the assistant adapts his acts to those of the physician because he knows his business, *i. e.*, because of his mental context (cf. Bühler, Krise 37 sqq. on Kontaktverstehen). In such circumstances, the vaguest terms, or even gestures or looks, may be sufficient. Written language, which has to forego the assistance of perceptual context, is often compelled to be more explicit than spoken language.

We may turn the matter round and say that a condition of shortening is that the verbal element or elements left out should have no indispensable function. It is evident that this happens when the function that this element should have fulfilled is covered by the help of context, and the more complete the context is, the less need is there of detailed verbal expression (cf. Paul, Prinz. 313).¹)

Another, and scarcely less important, condition for shortening is constituted by the traditional speech habits. The items picked out for naming are determined not only with regard to the actual context, and the requirements of the verbal functions, but also with regard to the available means of expression, the stock of words, and, especially, the stock of sentence schemes, as well as the general speech habits of the community or group (cf. 5.51). The hearer is, normally, familiar with the speaker's language system, and is thus equipped for the task of interpretation. An unusual degree of concentration will at once present difficulties to the hearer.

To sum up: the conditions of normal shortening are, (1) the speech functions that should have been fulfilled by the omitted elements must be covered with the help of available context. (2) The shortening should conform to the speech habits of the group.

Shortenings that exceed these limits will present difficulties of comprehension, and are therefore less liable to occur in normal easy speech.

As might be expected, we find that the conditions of shortening are based (1) on the methods adopted by the human mind in handling speech as an instrument for its purposes, and (2) on the consequent construction of the instrument itself.

These conditions involve both speaker and hearer. The actual, formal shortening is of course effected by the speaker, who is the judge of

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¹) Noreen distinguishes deictic ellipsis, where the supplementation is made on the basis of the situation (as (*give me*) *a cup of coffee*), and anaphoric ellipsis, where the supplementation is based on verbal context (as *gold* (*coins*) *and silver coins*). In the former instance, the context is mental or perceptual. I do not regard the second quotation as shortened.

its possibility and expediency. But since a speech must fail in its purpose if it is not correctly comprehended by the hearer, we may say that the limits to shortening are set by the hearer, or, more strictly, by the speaker's opinion concerning the hearer's ability to grasp his meaning.

The conditions stated apply both to clipping and omission, but most obviously to the latter. When a word is clipped, it is generally desirable that the remaining stump should be distinctive enough to lead on immediately to the referent.

An intermediate type may be specially mentioned. In a binary combination consisting of head-word and qualifier it sometimes happens that the whole fuses into a practically unitary appellation, out of which one link may be allowed to drop without detrimental effects, because of the close association to the meaning. Thus it seems to me that the abbreviation of *ville capitale* into *capitale* presupposes a certain degree of habituation. The outstanding instances of this type are the French negations: the negative particle *ne* is dropped in connection with *pas, point, personne, jamais, aucun,* etc. The omission could not have taken place if the whole expression *ne — pas,* etc. had not first fused into a unit, and been apprehended by linguistic feeling as signifying 'not'. The dropping of *ne* is therefore a clipping rather than an omission (cf. 10.3).

10.18. *The Causes of Shortening.*

10.181. *Preliminary Remarks.* The causes of shortening must be carefully distinguished from its conditions. Since shortening is involved in the speaker's method of using speech, the causes of shortening lie altogether with the speaker, in contradistinction to the conditions, which, as just stated, lie partly with the hearer. It is only indirectly that the hearer may cause shortening, by the speaker using a short expression out of consideration for the hearer, or to affect the hearer in some way.

The causes of shortening may be phonetic, graphic, functional, or economic, and each kind requires separate discussion.

10.182. *Phonetic Causes.* A word may be shortened for purely phonetic reasons, as any historical grammar will show. Phonetic reasons have also been adduced to explain shortenings of greater extent, which appear to go outside the action of sound-laws in a strict sense[1]).

W. Horn (Sprachkörper) asserts that if a syllable is without linguistic function — he is thinking especially of the symbolic function — it is liable to drop off, even if the loss of sounds is greater than could be accounted for by the action of known sound-laws. The loss of function thus directly causes the loss of sounds. Objections to this theory have been raised from various quarters. K. Luick (E. St. 58, 244; cf. also E. Ekwall, Anglia Beibl. 34, 131) thinks that the loss of function directly occasions a loss of expiratory stress. This factor closely follows the gradations in importance of the syllable. "Ändern sich jene Abstufungen, so ändert sich auch der Atemdruck, negativ wie positiv; letzteres im Fall der Hervorhebung einzelner Begriffe durch emphatischen Akzent. Hier haben wir also einen unmittelbaren, automatisch wirkenden Zusammenhang zwischen Wortvorstellung und Artikulation" (Luick, l. c.), The weakening of a sound or sound-group introduces new phonetic conditions which may lead to total loss, but only if the group is of a type that is regularly dropped in such positions in the language. The immediate causes of the loss are thus phonetic; the conditions for their action may be brought about by functional factors (See also Karstien, St. u. Aufg. 399 sqq.).

We should probably add that, if a syllable loses stress owing to loss of function, it can afterwards be dropped, not only for phonetic reasons, but also for economic reasons, in order to save effort in pronunciation (cf. 10.185). In many of the instances that are adduced in this section, phonetic, functional, and economic causes are so blended that it is not possible to disentangle them. Sometimes, the phonetic process is only a secondary cause.

Speakers have a tendency to slur unstressed and unimportant syllables, and hearers often pay little attention to them, even when they are pronounced (cf. 6.1 and 6.3). The articulatory movements may be too faintly innervated, so that no actual sound is produced until the second or third syllable (Jespersen, Ph. of Gr. 310, Sundén, Ell.

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[1]) Sundén's term for this kind of shortening is *prosodic reduction*, which Wellander (Studien II 30) renders *prosodische Reduktion*. Cf. Sundén, Ellipsbegr. 228, Jespersen, Negation 6 and Grammar II 8. 91, Slettengren passim, Poutsma I 999 sqq., Kjellman 3, Carnoy 240, Horn, Sprachkörper 10 sqq., Bergmann passim, L. Müller passim, Fowler, MEU s. v. Curtailed Words.

Words 65). Instances of such prosiopesis are *'cause, 'cept, 'sterrics 'struction, 'tickler,* for *because, except, hysterics, instruction, particular.* Slettengren (144) quoting a number of instances from Kipling's Just So Stories, points out that they are common in children's speech, and explains them as due to imperfect reproduction. Other English instances are *tawdry* and *tantony,* from *St. Audrey* and *St. Anthony* (see NED, Horn, Sprachkörper 16 and Weekley, Words 34).

In words of command, which have to be pronounced with a violent effort of the articulatory organs, concentrated generally on one syllable, the other syllables may drop out, as in *attention!* > *tention!* > *shun!*[1]) *Near!* is used for *no near!* an order to the helmsman to come no closer to the wind (NED, and Horn, Neue Beobacht. 135).

Euphemistic motives are no doubt active in the numerous shortenings of expletives (Brugmann, Abkürz. 369—370), as well as in the corruption of such words as *swelp me* < *so help me God, cripes* < *by Christ's stripes* (Jaeger, Engl. St. 60, 292. See also Sundén, Ell. Words 43, Jespersen, Gr. a. Str. 243, Weekley, Words 65). *Sblood, snails, slife,* and *zounds,* may be phonetic shortenings of *God's blood, nails, life, wounds;* the main motive is here perhaps euphemistic (Sundén l. c).

Prosiopesis may occur also in combinations: (*Do you*) *see?* (*Do you*) *remember that chap?* (*Will*) *that do?* (*I'm a*)*fraid not.* (*When you*) *come to think of it.* (*I shall*) *see you again this afternoon* (Jespersen l. c.).

It is probable that economic causes co-operate with phonetic causes in many abbreviations. Brugmann points out that we are especially careless with words that do not convey a communication, as the conventional formulæ of address: *Exlenz* for *Excellenz, 'ntag, 'nacht* for *Guten Tag, Gute Nacht, 'schamster* for *gehorsamster Diener;* French *msieu* for *monsieur, splè* for *s'il vous plaît;* English (*good*) *morning,* [*kju*] for *I thank you, please* for *if you please.* All kinds of courtesy formulæ are thus shortened (cf. Horn, Sprachkörper 18). I am not sure that the condition of shortening is the fact that these expressions do not convey a communication. As a matter of fact, they do. The most important condition is, I think, the circumstance that they are regularly used in identically recurring situations; after sufficient repetition, everbody knows what is intended, even if the words are more or less mutilated; *Good morning!* may degenerate into an inarticulate grunting sound. We should perhaps assume the economic factor to be the main reason for such shortenings.

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[1]) *'E sez to me, "Shun!" an' I shunted.* Kipling, The Seven Seas, Back to the Army Again.

Context in the form of an unambiguous situation probably also conditions many shortenings of words frequently used in group dialects; German officers, but not, for instance, business men, are liable to say *Rement* for *Regiment* (Brugmann, Abkürz. 369 sqq.).

Haplology may be a phonetic cause of shortening. Sundén, quoting Jespersen (Progr. in Lang. 343), instances familiar and vulgar pronunciations like [*laibri, febri, litri, probli*] for *library, February, literary, probably*. Brugmann (Abkürz. 370) gives Lat. *semodius* for *semimodius* and *praestigiae* for *praestrigiae*, which he calls *Dissimilationserscheinungen*. He thinks that the speaker at the moment of uttering the word has his articulatory movements not yet properly prepared, so two identical or similar movements may fuse into one. The tendency to save energy may also be active.

An incorrect analysis of words may lead to shortening. Sundén (Ell. Words 54) instances *atomy* for *anatomy*, in which the first syllable has been apprehended as the indefinite article. *Egma* for *enigma* occurs in Shakespeare. Several instances of this type have become standard forms: *cater* (sb., later *caterer*) is due to the loan-word *acatour* being taken for *a catour;* O. Fr. *l'assise* was analysed as *la sise*, and in English perhaps *assize* was analysed *a size; accrew* > *crew* and *appeal* > *peal* are not quite certain according to the NED. *Hydropsy* has become *dropsy* in ME by the stages *þe ydropesie* (with stress on the second syllable) > *th'idropesie* > *the dropesie*. *Fence* is an aphetic form of *defence*. (Should we assume haplological shortening of *the defence?* Cf. Weekley, Words 62 sqq., 113, 116; Jespersen, Language 173 on metanalysis, Grammar II 5.61 on numerus metanalysis, and Subtraktionsdannelser).

10.183. *Graphic Causes.* Graphic shortening, like phonetic shortening, is closely bound up with functional and economic motives. The written (or printed) form of an expression may be shortened for greater ease and convenience in writing, or for the sake of greater legibility or clearness. If the shortened symbol comes to be read as written, instead of being pronounced with its full form, we get a permanent shortening. *Gent* for *gentleman*, *ad* for *advertisement*, *sov* for *sovereign*, are no doubt due to abbreviations in written or printed form. Sundén (Ell. Words 70) calls these instances *orthographic abbreviation*, and states that they are particularly common in English. Wellander (Studien II 43 sqq.) speaks of *graphische Kürzung* and *graphisch bedingte Wortunterdrückung*, the former being clipping and the latter omission for graphic causes.

Among graphic shortenings are to be reckoned the innumerable abbreviated terms in the form of two or more letters, generally initial letters, that are so common in group dialects. Doctors speak of *tbc* and *d. t.* (tuberculosis and delirium tremens), business men of *fob* and *fow* (free on board, first open water), timber merchants of *t. g. b.* (tongued, grooved, beaded), cricket players of *l. b. w.*, and so on. During the war a large number of military abbreviations found their way into the papers and so into the common speech (GHQ, BEF, etc.), and some of them were employed as common nouns (*waacs*, members of the *W. A. A. C.*; *Dora* for *D.O.R.A.*, the Defence of the Realm Act; cf. Swed. *Sara* for *S. A. R. A.*, Stockholms Allmänna Restaurant-Aktiebolag). A typical Swedish instance is *stins*, now pronounced as written, originally *st.-ins.*, the official abbreviation of *stationsinspektor*. Other official abbreviations in general use in Swedish are *rek.* and *ass.* for *rekommenderad försändelse* and *assurerad försändelse* (registered letter, and insured letter). (See Nyrop, Etudes 13 sqq., 41 sqq., Kjellman 16 on abbreviation in advertisements, 17 on abréviation officielle, and 76 sqq. on abréviation par initiales; Rodhe, Abkürzungen).

According to the NED, *miss* for *mistress* may have been suggested by the written abbreviations *Mis.* and M^{is} (the latter representing the spelling *mistris*) which were common in the 16—17th c. (Cf. Sundén, Ell. Words 67; Horn, Sprachkörper 19 thinks that the shortening is due to the loss of function of the second syllable). It seems probable that English forms like *Acad.*, *exam.*, *prep.*, *lab.* (*academy*, *examination*, *preparation*, *laboratory*), are due to graphic shortening. This would explain why the syllable carrying the main stress of the words is sometimes dropped (cf. Horn, l. c. 17).

In many instances it seems quite evident that the striving for ease and saving of trouble is the cause of the graphic shortening; thus in the use of initials. In other instances the striving for legibility and clearness is quite as evidently active, especially in the use of signboards, tables, and the like.

Another type belonging here is the shortening of street names instanced by Wellander (Studien II 119): *Ecke der Jüden und Stralauer.*

It should have been pointed out that such abbreviations are no doubt due to official notices and signs. Nyrop (IV 60) states that it is the *métropolitain* that teaches Parisians to say *Alésia, Rome,* for *rue d'Alésia, rue de Rome.* Similarly, the tramway station at the corner of Parkgatan and Viktoriagatan in Gothenburg is called *Park-Viktoria.*

French *Hôtel Rambouillet, Chocolat Suchard, Style Louis XIV*, are quoted by Wellander (Studien II 54) as the pattern for similar German formations: *Hotel Wagner, die Angelegenheit Müller, die These Deutschbein, die Akten Schmidt, Fort Häseler, Division Falkenstein,* etc.¹)

The dropping of particles in habitual combinations in German has given rise to a real sense-change. Wellander states that in *Nähe Zoologischer Garten, Mitte See, Züge Richtung Berlin, Anfang Oktober, Ende Juni,* the words *Nähe, Mitte, Richtung, Anfang,* and *Ende,* have acquired prepositional meaning. Constructions of this sort occur chiefly in official and business language, perhaps originally, and still mainly, in superscriptions, notices, directions on signposts, tables, and in other circumstances where tabular form is convenient, and also conduces to brevity and clearness. The sense-change of *Mitte,* etc., is a change mainly of relational meaning (syntactical function) and thus falls outside the scope of the present work.

The same appears to be the case with some German instances where a preposition has been dropped. *In Kraft* has been shortened to *kraft* (*in Kraft allein des Rings > Krafft des Gesetzes*); *von Wegen* to *wegen* (originally: *von ains klainen misstrawens wegen,* then, with postposition of the noun: *von wegen des Priors,* and finally, with dropping of the preposition: *wegen deines Vatters*). The literary origin of several of these shortenings may, according to Wellander, indicate that they are mainly graphic, but phonetic motives are not improbable; we have probably to reckon with various causes (Wellander, Studien II 62, with further instances; Horn, Sprachkörper 96).

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¹) Wellander does not state his views on the French forms. According to Krueger, Arch. 108, 113, and Bergmann 28 they are formed on the analogy of older *Hôtel-Dieu, la fête St. Jean,* which show an uninflected genitive (or dative). Modern *fin courant, fin juillet, commencement août* may be an analogical extension of this type. Cf. Krueger, Arch. 107, 359, and Bergmann 30.

In English, the proper name is generally placed before the other noun: *Remington Typewriter, Zeppelin Airship, Waverley Hotel,* and so on.

I would suggest that these developments might be explained like English *a dune* > *adown* > *down;* that is to say, the original combination of preposition and noun fuses into a prepositional phrase, apprehended as a single preposition, and the first, unstressed, syllable is dropped, probably partly from phonetic and partly from economic causes. (Further instances in Krueger and Bergmann).

10.184. *Functional Causes.* The functional causes of shortening are perhaps the most important, but they are also much more difficult to define and discriminate than the phonetic and graphic causes, with which, as already stated, they often co-operate.

Starting with the communicative and symbolic functions, I have already pointed out above (10.12) that brevity may conduce to a better understanding, and too many words confuse the point at issue; the picking out of a few salient items may give a better idea of the topic than prolonged wallowing in details; the hearer may understand the shortened expression quicker and better.

The expressive function is partly covered by signals, but a shortened expression by itself may, owing to its unusual and perhaps ungrammatical, form, reflect better the speaker's emotional state and make the hearer aware of it. Clippings are very often intended to make the words express sympathy or endearment towards the persons addressed; nursery speech abounds in *nighties*, *tootsies*, etc., and clippings of proper names, transforming them into pet names, are often due to a similar desire for emotive effects (cf. Sundén, Ell. Words 49, 53). The numerous shortenings (clippings) in slang and cant often aim at a humourous effect.

Conciseness and brevity increase vivacity, and thus also the effectiveness of speech; brevity is the soul of wit; the purposive function may consequently be better served by shortened phrases.

Causal classes cross the formal classes; different functional types may lead to similar results, and vice versa. There are, however, a few types that stand out distinctly. The most important of them is euphemistic shortening.

Euphemism is due to a state of mind on the part of the speaker, characterised by a desire to tone down or veil offensive, indecent, or otherwise unpleasant statements. It very often leads to metaphors (see 11.8), but not seldom to shortenings; the offending word is either corrupted or clipped, and thus to some degree disguised, or else it is omitted altogether. Wellander (Studien II 9 sqq.) gives a number of German instances: *in gesegneten Umständen* is shortened to *in den Umständen; im Galgen hängen* to *hängen*. The numerous abbreviated invocations of gods and devils belong here. (French instances in Kjellman 3).

The euphemistic tendency may be based on consideration for the hearer, or on traditional avoidance of certain words, owing to taboo, or to Mrs. Grundy; but consideration of the speaker's own feelings may have similar results. A well-bred speaker will not use coarse words, but either leave them out or employ a paraphrase; the coarse words do not belong to the level of style and vocabulary at which he habitually moves, and which he will keep even if the hearer should happen to be less fastidious.

10.185. *Economic Causes.* Sundén (Ell. Words 49 and 53) speaks of the *lex parsimoniae* "that so frequently influences linguistic utterance". The desire to save effort may lead to the leaving out of verbal elements that are not indispensable. Brugmann (Abkürz.) emphasizes the importance of the *Bequemlichkeitstrieb*. Similarly Wittmann (116). Paul (Prinz. 313) seems to ascribe ellipsis a little too exclusively to this factor: "Die sparsamere oder reichlichere Verwendung sprachlicher Mittel für den Ausdruck eines Gedankens hängt vom *Bedürfnis* ab. Es kann zwar nicht geleugnet werden, dass mit diesen Mitteln auch vielfach Luxus getrieben wird. Aber im Grossen und Ganzen geht doch ein gewisser haushälterischer Zug durch die Sprechtätigkeit. Es müssen sich überall Ausdrucksweisen herausbilden, die nur gerade so viel enthalten, als die Verständlichkeit für den Hörenden erfordert".

I have already pointed out that the labour-saving tendency may work indirectly, leading to shortenings of the graphic or phonetic types. The question is whether the economic motive may be a *direct* cause of shortening. Sundén assumes that when *fall* is used for *fall of the leaf*, the reason is to be sought in this motive, and the explanation is probably correct. The human mind is so constituted that it is less of an effort to indicate only the genus to which the referent belongs, or to indicate the referent with a gesture — which may take the verbal form of a pronoun — than to give the precise name. The use of pronouns, or of generic words, to save mental effort, is especially characteristic of undeveloped minds, unintelligent or immature. The demands of the speech functions must set a limit to the economic tendency; on the other hand, since shortness may serve the functional needs better than a more complete expression, the two tendencies must sometimes co-operate. Purely phonetic processes may intervene as a third part. The combinations thus brought about in individual cases would no doubt repay a closer study, but as yet they are very little known.

10.2. The Classification of Shortenings.

10.21. *The Principal Point of View.* For the main distinction between different types of shortening, we have to choose between their causes, their conditions, and their form.

The distinction between phonetic, graphic, functional, and economic causes of shortening is evidently of great importance both theoretically and practically. Nevertheless, it cannot usefully be employed in classification on account of the way in which two or more causes often blend, and on account of the difficulty of determining the cause in individual instances, even when there is only one. The causal classes that stand out clearly, or comparatively clearly, as euphemism, cover only a small part of the whole field.

Comparing the causal point of view with the distinction between clipping and omission, we find that the two intercross, and that they could consequently be applied only in succession. It seems doubtful whether the causal classification is suitable even in a secondary place.

The conditions of shortening are still less useful as a basis of classification, since the same short expression may be conditioned by different kinds of context on different occasions. The waiter's "*sweet or dry, sir?*" may be conditioned by perceptual context, the sight of the two bottles, or by mental context (see 10.17).

There remains, then, in full agreement with the historical point of view previously adopted, only the formal side. Shortenings have to be classed according to their formal, morphological, character. As already indicated, the natural distinction is between the clipping of symbols, and the total omission of symbols. It is true that in this case, too, there are intermediate instances difficult to place, but that is a difficulty which can never be altogether avoided in semantic classifications.

Clipping is the shortening of a unitary verbal symbol, as *bus* for *omnibus*, *auto* for *automobile;* omission is the total dropping of one or more verbal symbols forming part of a combination, as *private* for *private soldier, fall* for *fall of the leaf.*

"Unitary" here means: forming a *semantic* unit. Such units are not necessarily written as one word, but sometimes as separate words, or hyphened: as *Lady Superior, black-bird,* in which the meaning of the combination is different from the combined meanings of the elements. Similarly, combinations may be written as separate words, or hyphened, or as one word: *classroom, double-ended, private soldier.* The written form is therefore no reliable guide to the semantic conditions, which are the basis of the distinction between unitary symbols and combinations. In a great many cases the distinction remains vague, but it is essential from the semantic point of view and has to be employed. (Cf. Fowler, MEU s. v. Hyphens, Nyrop IV 50 sqq., Wellander, Studien II 97).

The importance of the distinction between clippings and omissions, and consequently of that between unitary symbols and combinations, is evident from the following circumstances. When *omnibus* is shortened to *bus, citizen* to *cit, brigantine* to *brig, spectacles* to *specs, perambulator* to *pram,* and so on, no sense-change can be involved, because the stump is an entirely new word. When the stump happens to be identical in form with a previously existing word, as *hack* from *hackney, cad* from *cadet, pop* from *popular concert, props* from *properties,* and so on, the new word is rarely identified with the old word by linguistic feeling: they are apprehended as homonyms, and consequently there is no sense-change. Similarly when two shortenings give the same result: as *rep* from *repetition* and from *reprobate.*

In omissions, on the other hand, the verbal symbol or symbols pronounced are, by definition, identical not only in form but also in fact with previously existing words, and sense-changes are bound to follow in all cases where the shortening becomes habitual.

The unitary symbols of the form *black-bird* present an intermediary type, which is discussed in 10.3.

With regard to the further classification within the two main groups, the clippings that lead to a sense-change are so few in number, that no further classification appears necessary for my purposes. In the omissions, it seems expedient to continue the application of the formal criterion. I first distinguish omissions of one element in binary combinations from omissions in longer combinations. The former are much more numerous, and among them a further classification can easily be established. We shall find (10.41) that omission of the qualifier differs in several respects from omission of the headword, and I shall consequently make this the next division. Further groups are distinguished with regard to the syntactical nature of the words involved.

10.22. *Permanent and Contextual Sense-change. Delimitation of the Problem.* The field of discussion has now been limited in several ways. The historical point of view involves a restriction to (1) clippings, and (2) omissions that may be described as individual. Again, in these two groups we have excluded all shortenings that do not lead to a sense-change. According to the plan of this book, a further delimitation must be made. I am only investigating instances of permanent change of the basic meaning of single words. This involves the exclusion of shortenings that lead to changes of relational meaning (some instances will, however, be mentioned in 10.3), and also all instances of contextual sense-change.

Clippings are of inferior interest to me, since they seldom lead to a change of meaning; see 10.21.

In the case of omissions, the remaining portion of the expression is always formally and factually identical with a previously existing word, but the two words are not always identified by linguistic feeling. From a strictly genetic point of view the result of the shortening is a new word, as when *private soldier* is shortened to *private*, or *Shrapnel shell* to *shrapnel.* We have not, genetically, a sense-change of the words *private* and *shrapnel.* But to linguistic feeling, that is to say, for all practical purposes, we have a new meaning of the word *private;* with regard to *shrapnel* the matter is perhaps doubtful, at least at a later stage of the development.

From such indubitable cases of permanent sense-change we have to distinguish shortenings which lead to contextual sense-change only, as *Smith's* for *Smith's house, shop, rooms,* etc., *St. Paul's* for *St. Paul's Cathedral, Church, Chapel, Abbey, School;* or *five and six,* which may refer to feet and inches, or to shillings and pence, according to the context (cf. Nyrop IV 59—60, quoting Darmesteter, La vie des mots 44; Wellander, Studien II 102, 112) and so on. I suggest that these are contingent meanings, whereas *private* and *shrapnel* have acquired new "tied" meanings (cf. 4.25). The various referents for *Smith's* and *St. Paul's* do not form categories, as the referents of tied meanings do.

It seems as if so-called typical shortenings give rise to contextual sense-changes only, while individual shortening leads to permanent changes. However, the material at my disposal is not large enough for deciding the question, and I have to leave it to future research.

In the meantime, I shall have to restrict myself to individual omissions, as better known and more easily analysed. We have to discuss, then, (1) clippings, which seldom lead to sense-change and can therefore be briefly dismissed, and (2) individual omissions, which generally lead to sense-changes, and require a more detailed commentary.

10.3. Clipping.

It has already been pointed out that clippings seldom give rise to sense-changes; as a matter of fact, I have not a single indisputable instance.

The shortening of *citizen* to *cit*, *brigantine* to *brig*, *perambulator* to *pram*, *spectacles* to *specs*, etc., which lead to the formation of totally new words, have to be left aside altogether.

In other cases the stump word is identical in form with a previously existing word, as *cad* from *cadet*, *pop* from *popular concert*, *props* from *properties*, or two clippings may give the same result, as *rep* from *repetition* and *reprobate*. But it seems to be very rare indeed for the new formation to be identified with an older word, or for two identical stumps from different sources to be identified with each other. The words seem to be apprehended only as homonyms. A real association between them could scarcely be expected if there were not originally some similarity of meaning, which would naturally be a comparatively rare occurrence. Some special cases and types require discussion.1)

The word *Miss* (on its origin, see 10.183) is first instanced in the NED as denoting 'a kept mistress, a concubine' (1645). A quotation from 1662 says . . . "Misse, as at this time they began to call lewd women". But almost simultaneously we find *miss* in its present use "prefixed as a title to the name of an unmarried woman or girl". It seems impossible for either of these two senses to have arisen out of

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1) For lists of clippings, and comments upon them, see L. Müller 55 sqq., Wittmann, passim, Greenough & K. 61 sqq., Jespersen, Language 169 sqq., Sundén, Ell. Words 50, 73, 184, Horn, Sprachkörper 9, Kjellman 6 sqq., Carnoy 240, Bergmann passim, Nyrop, Etudes 13 sqq., Weekley, Words 66, Fowler, MEU s. v. curtailed Words. The instances in the following sections are taken partly from these authors, partly from the NED, which has always been used to verify the statements.

the other except through a comparatively long development. We have to assume that they represent two independent shortenings of *mistress*, in which word both meanings are much older, and due to French influence. The clipping has thus given rise, if not to a sense-change, at least to two meanings of one word. I assume that it was apprehended as one word by seventeenth century linguistic feeling.¹)

An intermediate type is represented by German forms like *der Korn* for *der Kornbranntwein*. French *la Saint-Jean* for *la fête de Saint-Jean*, *un première Paris* for *un billet de première classe à Paris*, *un poche* for *un violon de poche* (Bergmann 18). In form they appear to be combinations, not unitary symbols, but in the shortening they are treated like unitary symbols, as is shown by the fact that they retain the gender of the dropped head-word. Compare instances like Viennese *der Ring* for *die Ringstrasse*, *die Burg* for *das Burgtheater* (Noreen 272), which are genuine omissions of headword; each element of the combination was still felt as an independent unit, and when the second element was dropped, the first element took its own gender. It is evident that *der Korn* 'corn brandy' is not identified by linguistic feeling with *das Korn* 'the corn'; there is thus no sense-change. (Cf. Wellander, Studien II, 4, 107, III viii, 3 sqq., 26, 28; Krueger, Arch. 107, 351 sqq., Bergmann 18, 19).²)

In English, where gender is not indicated, we get no precisely parallel

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¹) I may mention here the phenomenon termed by Sundén pseudo-ellipsis (Sundén, Ell. Words 141 sqq.). *Bob* has been considered a hypochoristic shortening of *Robert*. But why should *R*- be changed into *B*-? Sundén points out that there existed in OE the proper names *Boba, Bobba, Bobing*, and in ME *Bobbe, Bobin, Bobbet*. *Robert* was introduced into England through the Norman conquest; a shortening of *Robert* gave *Rob* or *Robbe*, which are also instanced in ME. We have thus *Bobbe* and *Robbe*, of different origin, but both of them proper names. It is reasonable to assume that the two names were confused, and *Bobbe* apprehended as a short form of *Robert*. Sundén is able to show that a similar process is probable for *William* — *Bill*, *Richard* — *Dick*, *Amelia* — *Emy*, *Edward* or *Edmund* — *Ted*, *Isabella* — *Tib*, *James* — *Jem*, *Jim*, and others. We have here a double process: shortening plus phonetic associative interference (see 9.4).

²) Wellander (Studien II 4 sqq.) attempts to make use of the indisputable shortening of *Kornbranntwein* to *Korn* 'corn brandy' to prove that *Schirm* 'umbrella' must be a shortening of *Regenschirm*. He has failed to notice that *Regenschirm* is a species of *Schirm*, while *Kornbranntwein* is not a species of *Korn*, but of *Branntwein*. The latter should therefore be compared to *der Ring*, *die Burg*, as quoted above, and here the essential difference to linguistic feeling between clipping and omission at once appears in the change of gender.

instances, but the number may show a clipping: *All Souls*, as a shortening of *All Souls' Day* or *All Souls' College*, takes the verb in the singular, in spite of its plural form. Cf. German *Aller Heiligen* (Wellander, Studien III 19) and see Jespersen, Grammar II 8. 93,

The much-discussed case of French *ne — pas* and other similar expressions will probably have to be considered as representing an intermediate type. French *pas*, *point*, *rien*, *aucun*, *jamais*, *personne*, from Lat. *passum*, *punctum*, *rem*, *aliquem unum*, *jam magis*, *personam*, are all originally positive words, and in all of them except *rien* the positive meaning persists by the side of the negative one. As typical for the group I take *ne — pas*. Jespersen (Negation 16) states that *pas* was first used with verbs of motion, in connection with which the primary meaning of the word was of course very much in its place. It functioned as an intensifier of the negation, and it had to submit to the same development as so many other intensifiers, the fading of the cognitive elements of meaning (cf. 14.531). The definite cognitive import 'step' disappeared, and there remained only the emotive element, the intensifying function. When this adequation was completed, *ne — pas* was capable of extension to other verbs which would not have been compatible with it when *pas* still retained its original meaning. *Ne — pas* now meant 'not at all', and was, like *not at all* in English, a semantic unit, although written as two words. At this point of development, it becomes possible to drop the first member of the expression without detriment to its function as a negative.

Simultaneously with, or subsequently to, the fading of the cognitive elements of *ne—pas*, a fading of the emotive elements set in, resulting in a weakening of the intensive force of the expression. This is also a case of adequation (14.532).

Through these two processes we arrive at a state of things in which *ne—pas* is an ordinary negative; this is still the case in literary French. Although, to the eye, two words, it is a semantic unit expressing a simple meaning.[1])

Like other unitary symbols, *ne—pas* can be subjected to clipping, consisting in the dropping of the *ne*. The immediate causes of this clipping may be phonetic. Jespersen (Negation 5) points out that when a negation is put at the head of a phrase or sentence, it is liable to disappear owing to prosiopesis. A speaker begins to articulate, or believes he does, but in reality he does not produce any sounds until two or three syllables after the beginning of what he wanted to say, either because he does not at once use sufficient force of breath, or because he does not place his vocal cords in the proper position. This is very common and may become a habit, especially in standing phrases (see 10.182). Moreover, before a vowel *ne* is reduced to *n'*, and in careless speech, especially with a consonant preceding, the *n* is easily lost: *ce n'est pas* becomes *c'est pas*. Functional and economic causes may contribute to the result (cf. Horn, Sprachkörper 93). The reason for dropping the *ne*, and not the *pas*, is probably to be partly sought in the slight phonetic body of *ne*, especially when its vowel is elided. *Ne* alone is retained in *je ne saurais le dire*, and other traditional phrases; this is not a shortening of *ne—pas* but a continuation of the earlier use of *ne* without re-inforcement.

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[1]) Cf. Horn, Sprachkörper 7, and the instances quoted there; also Wundt II 583, who states that "sich die Begriffsinhalte der verbundenen Wörter so innig assoziieren, dass sie nur noch *einen* Begriff bilden." Wundt's explanation is otherwise unsatisfactory.

In this way, *pas* may finally come to mean 'not'. As Marty states (Unt. 524 note 1, and 669), the dropping of *ne* does not involve a sense-change. A change took place when *pas*, after connection with *ne*, acquired through adequation the meaning of a simple negation. The dropping involves a sense-change only if *pas* 'not' is identified, by linguistic feeling, with *pas* 'step', which is probably not the case. We may compare the dropping of *ne* with the shortening of *automobile* to *auto* (cf. Lerch, Negation).

In English, an original *ne—butan* has been shortened to *but: we nabbað her buton fif hlafas and twegen fiscas* > *we have here but five loafs and two fishes* (Horn, Sprachkörper 90), *he nis but a child* > *he is but a child* (NED *but* 6). The immediate cause of the omission of the negation is not quite certain. It is not impossible that influence from other uses of *but* may have intervened.

According to Kjellman (7) the tendency to clip words in French is practically entirely due to the lower strata of society. In English, I think we may safely say that the tendency comes essentially from careless speech, vulgar or not.[1] Wittmann states that student slang consists in large part of clipped forms. Some of these seem to be made for convenience, others are humorous in intention (Wittmann 117).[1]

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[1] An instance at random: "It's frightf'ly awk for us, all this, said the young lady. I should never've got there in time. You seen our show, 'Dat Lubly Lady'?" (Galsworthy, The Swan Song p. 25). The speaker is a chorus girl.

10.4. Omission.

10.41. *Preliminary Remarks.*

10.411. *The Form of the Shortening. Contrasted Referents.* As mentioned above (10.21) the omission in a binary combination may affect either the headword or the qualifier. It will be necessary to discuss the reasons for this variation.

As a general principle, we may say that when no specific factors are involved, the natural way to shorten a binary combination of headword and qualifier, is to leave out the qualifier and use the generic word alone in a particularized meaning: *red roses* — *the roses* (sc. those of which I am speaking, the red ones. On particular meanings, see 4.23).

In some cases, this is the only possible way of shortening, as in the types *fall* (*of the leaf*), *to lay* (*to pledge*), *to be short* (*of money*), in which an omission of the headword is out of the question, for obvious syntactical reasons (see 10.422—10.424). We can therefore leave these types aside at present, and confine the discussion to combinations consisting of an attributive noun or adjective with a nominal headword.

If we are speaking about *one* thing, or referent, and using a name of the type *red roses*, the natural way to form a shorter name for the referent is, as I have just stated, to employ the generic word alone, and it is a method of which we make a very frequent use. The explanation will be discussed below (10.412). If we are speaking of *two* or more referents, or if we are speaking of one referent, and thinking of one or more others, belonging to the same genus, their names often contain the same headword, as *red roses and white roses*, *red and white roses*. In such cases, it is obviously impossible to omit the distinctive qualifiers without running the risk of ambiguity. If the names are to be shortened at all, it can be done only by omitting the headword. In English, the saving of space and effort by this means is somewhat illusory, since the prop-word *one* must be used: *the red ones, the white ones*, but in other languages the method is more effective: *les rouges, die Roten, de röda.*

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[1]) The further classification of clipped forms is of no great interest to the present study. I refer, for points of view, to Sundén (Ell. Words 185 sqq.), who deals mainly with prosodic shortenings, Kjellman 20 sqq., Wittmann 118 sqq., and L. Müller.

Similarly, if we are speaking of referents named by combinations of identical qualifiers and different headwords, as *German language and German literature, German language and literature,* the only possible method of shortening is to leave out the common member, the qualifier.

The *form* of the omission — the choice of method — is thus determined by the nature of the contrasted or compared referent. If it belongs to the same genus — denoted by the headword — the headword can be omitted; if it belongs to another genus, but has the same quality — denoted by the qualifier — then the qualifier can be omitted. But note that the conditions for the omission *as such* are always those described in 10.17: the presence of an adequate context, verbal, perceptual, or mental, which supplies the functions that should have been filled by the omitted word.

The fact that another referent is contrasted with the one in question does not necessarily imply that the name of the contrasted referent is constructed in the same way (qualifier + headword); that is the case with *red and white roses*, and probably in most omissions; but not always. A *private soldier* (see also *common soldier*, NED s. v. *common*, adj. 12) is so named in contrast to *officers;* officers are also soldiers, although not expressly so named, and the omission of the headword was therefore the only possible way of shortening.

Nor is it necessary for the contrasted referent to be expressly mentioned in connection with the one in question; that is to say, the contrasted referent need not appear in the *verbal* context, it may be present only in the perceptual or mental context, as in the following sentences (from a newspaper): *For popularity none can approach cocker spaniels or Irish setters. Cockers, a long way in front of any others, are right on the crest of the wave at the moment.* No other breed of spaniels is mentioned in the whole paragraph, but it would be misleading to shorten the name by leaving out the qualifier; there *are* other breeds, and the generic name would therefore be ambiguous. The writer's knowledge of other breeds (his mental context) is sufficient to determine the form of the shortening.

Since the natural way of shortening, when there is no contrasted referent present to the speaker's mind, is to leave out the qualifier, it follows that omission of the headword without contrasting referent is rare. I am speaking here of the actual shortening. If the shortened form becomes habitual, it is likely to be used as the name of the referent in any context, with or without contrast; that is the case with *private* (sc. soldier)[1].

To sum up, the *form* of the omission — whether of headword or of qualifier — is determined, (1) if there is no contrast or comparison, by our speech habits, which mostly lead to omission of the qualifier; and (2) if there is a contrast or comparison, by the nature of the contrasted referent, as described above.

The omission *as such* is conditioned by adequate context in the usual way.

10.412. *Omission of Qualifier and Genus pro Specie.* I mentioned above the use of a generic name for a species: *roses* for *red roses*. Are we to explain the use of *roses* = 'red roses' as a shortening of the fuller term *red roses*, or is it a case of genus pro specie with no *direct* genetic connection with the fuller term? In an occasional combination like *red roses* the latter explanation seems a priori more probable, but it might be otherwise in habitual combinations.

If the generic term *machine* is used for a *sewing-machine*, both the explanations mentioned are theoretically possible. But if *machine* is used for a *type-writer*, it must be a case of genus pro specie. On the other hand, when *fall* 'autumn' is used for *fall of the leaf* it must be a case of shortening, since the meaning of *fall* here lies outside the original semantic range of the word, and a direct sense-change from *fall* 'act of falling' to *fall* 'autumn' is out of the question. It is thus only the type *sewing-machine*, where the generic name enters as an element into the name of the species, that requires further discussion.

Compare the following paragraph from a newspaper: "Budapest, February 15. Although the opera ball has been cancelled this year owing to the economic crisis, the event of the carnival season is likely to be the ball given by the war prisoners, to be called 'One Night in Siberia'". In this short paragraph, we note the following conspicuous instances of words employed in particular meanings: *the* (*Budapest*) *opera ball, the economic crisis* (*in Hungary*), *the* (*outstanding*) *event, the carnival season* (*this year in Budapest*), *the* (*Hungarian*) *war* (*i. e. Great War*) *prisoners* (*i. e. late prisoners who have returned alive and are now in*

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[1] Wellander has, in my opinion, misinterpreted the nature of the connection between syntactical parallelism and shortening (see the criticism in 10.5 below), but he has the merit of having emphasized that there really is a connection of some kind, which must be taken into consideration.

Budapest). A closer scrutiny would have to point out that *cancelled, economic, season, likely, given, called,* are all used in particular senses; that is to say, every word of any importance in the paragraph is used in a particular meaning, a meaning determined by context, mental or verbal, but chiefly the former. With the help of this context the reader is easily able to interpret the whole paragraph correctly.

The passage is not peculiar in this respect: practically every word in every written or spoken sentence is thus used, not as denoting its whole referential range, but as denoting some particular referent or referents within the range (cf. 4.23). The use of words in particularized meanings is thus an extremely common phenomenon, and in most cases shortening cannot be adduced in explanation. On the other hand, the number of cases in which shortening can be *proved* (type: *fall of the leaf*, etc.) is very much smaller. If we go by the law of probability — when no other criterion offers — we ought to assume that our mental processes follow their most habitual lines (cf. Marty, Unt. 669).

For my purpose — classifying *sense-changes* — we may argue as follows. If we call a referent the *International Labour Conference,* or the equivalent in any other language, we have, eo ipso, classed it as a conference. If, in the sequel, speaking of the same referent, we denote it by *the Conference,* dropping the qualification, we cannot say that the word has changed its meaning, since the referent was from the beginning denoted by this generic name. Consequently, all instances of this type fall outside the scope of my study.¹)

In accordance with these principles, I include in the present chapter only indisputable instances of shortening, those in which the semantic

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¹) If our purpose is to classify *shortenings,* the problem is not so easily solved. When the referent is, in the second or third instance of naming, called by the generic name, *the conference,* it might equally well have been called *the meeting* or *the session.* The last two must, in any case, be instances of genus pro specie, and it seems reasonable to analyse the first in the same way, if no proof of shortening is available. The three nouns are parallel in various respects, and should, if possible, be explained in the same way. It seems better, in doubtful cases, to employ the explanation that is applicable to the great mass of words used in particular meanings, than to let a very large group follow the much smaller group in which shortening can really be proved. I may add that the explanation here recommended also covers the use of pronouns: we may refer to a previously mentioned conference as *it* (cf. Sundén, Ell. Words 26, and Wellander, Studien II 76 sqq.).

range of the generic name, after the shortening, falls outside its original range, and in which a direct sense-change is improbable.

I think this principle may also apply to new referents. If Wellander is right in asserting that when umbrellas were first introduced into Germany, their name was *Regenschirm*, which was later on shortened to *Schirm*, then the term *Regenschirm* already implies that the new object has been classified as a *Schirm* of some kind (this is substitution, ch. 8). The subsequent use of *Schirm* alone is conditioned, as usual, by the presence of an adequate context, verbal, perceptual, or mental, which fills the functions of determinant that might also be filled by the word *Regen-*. It is probable that *Schirm* 'umbrella' should now be regarded as a unique use (see 14.85).

One reason for the impossibility of upholding the distinction between omission of qualifier and genus pro specie, in cases where no sense-change definitely proves the former explanation to be correct, is the fact that our psychic processes are so variable, from person to person, and from occasion to occasion. A generic word with a particular meaning may, for one speaker, be a case of shortening, while for his hearer it is a case of genus pro specie.

10.413. *Further Delimitation.* When we turn to omission of the headword, we are confronted by another set of problems; in many cases it is doubtful whether we should assume a shortening, a metaphor, or a permutation. Instances are the use of a painter's name for a painting (*a Rembrandt*), an author's name for a book (*a Shakespeare*), a place-name for an event that happened there (*after Waterloo*), etc. The matter will be discussed again below (11.7 and 13.2). I shall follow the same method as before, reckoning as shortenings only indisputable instances, of which there is a considerable number (see 10.43). Thus, when *a four-oar boat* is termed *a four-oar*, it is obviously a shortening.

A qualifier and a headword mutually determine each other's meaning in a peculiar way. When either is omitted, the determination must be provided by context in order that the remaining word may be correctly interpreted. In that respect there is no difference; the conditions of shortening are essentially the same in both cases. That is true also of the causes of shortening. It is the syntactical function of the omitted word that is different, as well as the syntactical results of the omission.

When the qualifier is omitted, the headword retains its syntactical function without change. But when the headword is omitted, the qualifier, remaining alone, receives a new syntactical function. An attributive noun presents no difficulty; it simply takes over the functions of the headword; *a bow window* becomes *a bow*. Attributive adjectives are substantivized: *private soldier* > *private*. This, too, often occurs without any difficulty. Omission of noun plus preposition is rare in English, but follows the same lines (see 10.433).

The omission of a verb qualified by an adverb naturally presents syntactical difficulties, since an adverb could not easily take on verbal functions. Apparently it is only in English that adverbs of direction are actually used and inflected as verbs: *to down, to up; I outs into the street again* (Kipling, Barrack-room Ballads, Tommy).[1] In German, for instance, such a development is scarcely imaginable (Wellander, Studien III 14). In the English instances, omission of a verb is generally assumed. Various verbs might stand in such a position, and we should therefore have to assume typical shortening (Cf. Krueger, Arch. 108, 121, L. Müller 48, Sundén, Ell. Words 20). Wellander is doubtful about the matter, and quotes Paul for another explanation (Studien II 124, Paul, Prinz. 320). In English, at least, I should prefer not to assume shortening. It was possible, from the beginning, to say *he is down, he is up*, etc. A further development would be, *I must up, he will down*, in which we still, originally, have the adverbs, but in a position generally held by an infinitive. Since an English infinitive has no distinctive ending, the adverb could easily come to be apprehended as an infinitive, and other verbal forms be analogically deduced. The circumstance — pointed out by Müller — that adverbs in *-ly* are not thus used, may perhaps be interpreted in favour of the explanation given. That ending is typical of adverbs, but very rare in verbs, and it is not unreasonable to assume that it might prevent the adverb in combinations with *he is, he will, he must* etc., from being apprehended as a verb. It is less easy to say why the ending should have prevented the omission of a copula, as assumed by the theory of omission.

There is, however, a third explanation, which would bring these cases into a large and well-known group, *viz.* to explain them as instances of primitive shortness (*ursprüngliche Kürze,* see 10.5). Sentences without a verb are common from the oldest periods of our languages. Brugmann quotes a number of different types in K. vgl. Gr. § 941. In questions, orders, and exclamations, it seems to be especially common to leave out the copula; the practice could no doubt easily be extended to other types. Wellander (Studien II 124) quotes numerous German and Swedish instances of the type *Ich in voller Carriere nach Haus! Jag upp ur sängen och ut i farstun.* The problem is of some interest, and would require further investigation.

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[1] Often, indeed quite recently, I have sat
Sceptred and orbed the absolutist throne,
Have upped this favourite, downed that other one,
This absolutely good, that utterly bad.
Robert Graves, Modern Poetry, Adelphi, vol. II, p. 290.

10.42. *Omission of Qualifier in Binary Combinations.*

10.421. (*Attribute*) + *Noun.* The attribute may be a noun or an adjective. I have no satisfactory instance of the omission of a nominal attribute. (*Neat*) *cattle,* and (*police*) *force* are adduced, but I am very doubtful about them. When these referents are so named, they are, eo ipso, classed as *cattle* or *force,* respectively, and the use of the generic word alone may just as well be a case of genus pro specie. Similar observations apply in many cases to Wellander's instances of *Bestimmungsellipse* (Studien III 127 sqq.) He quotes, among other words, *Zeichengeber* and *Zeichenempfänger,* shortened to *Geber* and *Empfänger.* The terms are used by Martinak in his Psychologische Untersuchungen, and they are probably coined by him for his own purposes, even if they had been used previously by others. I am uncertain whether *Geber* could be genus proximum to *Zeichengeber;* if not, it is a genuine case of shortening; but I suppose that *Empfänger* is gen.prox. to *Zeichenempfänger.*

Authentic cases of the omission of an adjective attribute are also rare in English. Judging by the quotations in the NED, *corn,* in its American sense of 'maize', is a shortening of *Indian corn* (Franz 31). *Conceit* 'good opinion of oneself' may be a shortening of *self-conceit* or of *conceit of oneself* (NED s. v. conceit sb. 6). *Libel* 'a leaflet, bill, or pamphlet posted up or publicly circulated; esp. one assailing or defaming the character of some person', is short for *famous libel,* from Law Latin *libellus famosus* (NED. Cf. Weekley, Words 42. French instances in Bergmann 18).

The omission of a genitive seems to be instanced in the following cases. *Knight* originally signified 'a boy or lad employed as an attendant or servant; hence, by extension, a male servant or attendant of any age'. With a genitive or a possessive pronoun it came to mean 'a military servant or follower (of a king or some other specified superior)'. According to this view, *the king's knight*, originally 'the king's servant', would take on the meaning of 'a military servant of the king,' and since these were often men of noble birth, it came to be applied to men of higher rank. Through the dropping of the genitive, *knight* alone received the same meaning. Similarly, *wife* 'woman' with a genitive or a possessive pronoun comes to mean 'somebody's woman', that is 'uxor'.

10.422. *Noun* + (*Prepositional Phrase*). *Fall* 'autumn', from *fall of the leaf* has already been quoted (cf. Sundén, Ell. Words 42). *Imp*, originally 'young shoot of a plant or tree, sapling' etc. acquired the meaning 'scion (esp. of a noble house), offspring, child'. The word was then used in phrases like *imp of serpents* (*Hell, death, damnation, the devil*, etc.), and, with omission of the qualifier > 'a little devil or demon, an evil spirit' (NED). *Flour* is the same word as *flower*. Originally it signified the 'flower' or finest quality of meal; in all the early quotations is added: *of wheat, of barley, of rice, of meal*. From 1691 the NED quotes: "*Milk, Water, and Flower, seasoned with Salt. . . are rare Foods for Them*". Here there is apparently no qualification in the verbal context.[1])

Two pair of stairs was shortened to *two pair;* the earliest instance in the NED is from Dickens (1844): "a spacious room on the two-pair front". *Mail* (*of letters*) originally denoted a 'bag or packet of letters or despatches for conveyance by post, hence the letters so conveyed'. *The Mails for Calais* (1684, NED). The shortening is followed by a permutation, from 'letter-bag' to 'letters'. A railway *train* was originally a *train of carriages*, or *waggons*. (NED. Cf. Carnoy 114 and 128, Bergmann 21 sqq.).

10.423. *Verb* + (*Object or Complement*). The instances of this type are comparatively numerous.

To put to is shortened from *to put the horses to*. The NED shows the following series: *To put the horses to the carte* (1565); *I bid him get the horses put to* (1768); . . . *that James should put to for such a purpose*

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[1]) The earliest instance in the NED runs: "*Kalues fleis, and flures bred, and buttere*" Gen. a. Ex. 1013 (c. 1250). Here the word *bread* is no doubt to be regarded as supplying the necessary qualification.

(1815). It may be suggested that the passive construction in the second quotation serves as intermediary in the shortening. *To lay* 'to stake, wager' is shortened from *to lay to pledge: ȝerne he wile þe bidde and preie, þat þu legge þe cupe to pleie* (= pledge; 1300); later on we find the shortened phrase: *Of Charlemeyn ne his ferede nabbeþ þay non help, y legge* (1380). Other instances, which may be similarly traced, are *to dissolve* (*Parliament*), *to leave* (*school*), *to open* (*fire*), *to pop* (*the question*), *to shake* (*hands*), *to strike* (*colours*), *to take* (*effect*), *to hang out* (*one's sign-board*), *to knock off* (*work*), *to break* (*an officer*), *to call* (*to the bar*), *to hold forth* (*the word of life;* cf. Franz 33), *to stand* (*candidate*) *for a club, to score* (*success*), *to recruit* (*one's strength*), *to give notice* (*to quit, to leave*), *to retire* (*to bed, to rest*). (Cf. Sundén, Ell. Words 40 sqq., Krueger, Arch. 107, 361 sqq., Bergmann 38, Wellander, Studien III 52 sqq., 133 sqq., Stöcklein 68).

10.424. *Adjective or Participle* + (*Qualifier*). Convincing instances are rare. *To be short* (*of money*) is adduced by Krueger (Arch. 108, 109). There is, however, an alternative explanation. *Short* is instanced in the NED from late ME in the sense 'not coming up to some standard of measure or amount, inadequate in quantity', as *short measure, short weight,* etc.; *short payment* is given from 1681; *the money was short by 3d.,* from 1753. The transfer of the adjective from the article that is wanting, to the person that is wanting in the article, would be a transfer of epithet of a very common type. There are a number of instances illustrating it in Stern, *Swift* (271 sqq.). Paul makes an observation (Prinz. 320) on "die schon vor der Entstehung aller formellen Elemente der Sprache vorhandene und immerdar bleibende Fähigkeit, die Beziehung in welche zwei Begriffe im Bewusstsein zu einander getreten sind, mag dieselbe nun eine unmittelbar gegebene oder eine durch andere Begriffe vermittelte sein, durch Nebeneinanderstellung der Bezeichnungen für diese Begriffe auszudrücken". The transfer of an adjective from a thing to a person who stands in some relation to it must have been common in speech from early times. Similar observations would apply to Wellander's instances *rot, bleich* (*im Gesicht*), *teuer, billig* (*im Preise*). (Studien III 240. Cf. 13.3).

Engaged 'fiancé' may be a shortening of a longer phrase. The instances in the NED, s. v. *engage* 4 b, are not entirely decisive. The first of them seems to imply a preceding context that determines the meaning of *engaged.* The other two instances have both the phrase *engaged to a young lady* (*a young man*). Possibly this specialized meaning of *engaged* is as yet contextual only.

10.43. *Omission of Headword in Binary Combinations.*

10.431. *Attributive Noun*+(*Noun*). This is a very common type. If the two links in the combination are intimately fused, we have in reality not an omission but a clipping (cf. 10.3: *Kornbranntwein* and *All Souls*), but in English there is often nothing to show how we should explain an individual instance.

The following are typical: *Lancet* for *lancet arch,* or *light,* or *window; bow* for *bow-window, brake* for *brake-van, bugle* for *bugle-horn, bull's-eye* for *bull's-eye lantern, porter* for *porter* (or *porter's*) *beer, staple* for *staple ware, the Underground* for *the Underground Railway, buttonhole* for *buttonhole flower, saloon* for *saloon car* or *carriage, safety* for *safety bicycle* or *lock, stock* for *stock-gilliflower.*

The qualifier is often a proper name: *gladstone* (*bag*), *bramah* (*lock*), *bristol* (*stone*), *the Cape* (*Colony*), *the Carlton* (*Club*), *shrapnel* (*shell*). *Port* for *portwine* should perhaps be reckoned as a clipping. (See 11.331, and Franz 29 sqq., Sundén, Ell. Words 23, Krueger, Arch. 107, 361).[1]

According to the NED, the use of the article with names of ships, hotels, etc., is due to an appellative noun being omitted: *the* (*ship*) *Nicholas, the Mermaid* (*Tavern*).

10.432. *Adjective* + (*Noun*). In this type, as in the preceding, we must sometimes suspect that the shortening is not an omission, but a clipping. The instances are very numerous.

Private is a shortening of *private soldier;* the simplex is at first uninflected, even in the plural, but it is inflected in a quotation from 1810

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[1] In French, the attributive noun mostly comes after the headword, and omission of the latter seems pretty frequent: *un chat Angora* is shortened to *un Angora* (Bergmann 22).

Of Wellander's instances (Studien III 11 sqq.) some are shown by their gender to be clippings (as *einen Bock* [illegible] ~~*trinken*~~, *das Mittag* for *das Mittagessen,* Swed. *växtet* for *växtmargarinet*). Others seem to be instances of naming: *Pour le mérite* is the inscription on an order, and the order is naturally so named. Cf. Swed. *Litteris et Artibus,* denoting a medal with that inscription. Similarly *Schloss Johannisberg* and *Kupferberg Gold* are names printed on the labels of these wines, and we consequently name the wines thus, without further additions. Books have been thus named from their authors, as OE. *seo boc, þe man Orosius nemneð.* Cf. 13.24 on permutations of this kind. — Other instances of Wellander's are no doubt genuine omissions.

(NED). Other instances are *general* (*housemaid;* or, but probably only contextually, *omnibus*, that is to say, an omnibus belonging to the London General Omnibus Co.), *a blue* (*-stocking;* clipping?), *the blues* for *the blue devils*, *a constitutional* (*walk*), *a commercial* (*traveller*), *bay* (*-antler*), *the main* (*sea*), *a natural* (*fool*). *Scout* (F. *escoute*) is originally 'the action of spying out or watching', later 'one sent out ahead of the main force in order to reconnoitre' (1555); this may be a shortening of *scout watch* 'sentinel, spy', which is instanced from 1350 (NED). *Periodical, daily, weekly, monthly* (sc. *paper* or *review*), are now used as nouns; *epic* may be from *epic poem*. The earlier *epidemy* has been supplanted by *epidemic*, from *epidemic disease*. It seems probable that *penal* (*servitude*), *hard* (*labour*), *casual* (*labourer, pauper*, or *patient*), perhaps also *private* (*soldier*), are due to graphic shortening. Otherwise all the different causes of shortening may be found in this type.¹)

We sometimes find occasional omissions, as *it's no earthly* (sc. *use;* Galsworthy, Silver Spoon p. 22).

According to the NED, the use of the definite article before names of languages implies that the name is "consciously elliptical": *a new translation from the Hebrew.* Sweet (NEG 2040) states that in *a book translated from the German* "the article seems to suggest 'the German original".

10.433. (*Noun* + *Prep.*) + *Noun.* The type is probably rare in English. Franz (28) states that *exchange* = *Bill of Exchange*, is a shortening of the latter combination, but the evidence available in the NED does not seem conclusive. However, the two expressions may undoubtedly be synonymous. Franz also thinks that *a sherry* is a shortening of *a glass of sherry*, but this is probably wrong. Many names of substances and liquids are used for varieties or qualities of the substance: *a tea, a sherry* = *a kind* or *quality of tea, of sherry. This is an excellent sherry*, or *try this sherry* might be said by a person offering a glass of sherry; *sherry* would then be used, in reality, of a glass of the wine, and permutation would account for the change to that meaning.²)

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¹) The type is very common in German and French; see Wellander III 10, Franz 30 sq., Bergmann 10 sqq., 29 sqq., Nyrop IV 59 sqq. Krueger, Arch. 107, 361, 369, Stöcklein 65 sqq. Carnoy 244.

²) I may note here the freakish (intentional) shortenings *hot with* 'hot spirits and water with sugar', and *cold without* 'brandy or spirits in cold water without sugar'.

In French this type is common: *un bateau à vapeur* is shortened to *un vapeur,* and so on. (See Bergmann 9 sqq., 21 sqq.).

10.44. *Omissions in Longer Combinations.* Sundén states (Ell. Words 57 sqq.) that the Germanic languages do not favour three-linked compounds, and still less four-linked: *twelfth-tide* or *twelfth-night cake* is shortened to *twelfth-cake.* The shortening is probably due to analogy, as Sundén says. In many cases where the two-linked compound seems illogical, I think we have nevertheless to be cautious about assuming shortening. As pointed out by Paul in the paragraph quoted 10.424, the relations between the elements of a compound may vary within the widest limits, without any connecting link being necessary. Sundén adduces *news-boy* "for the logically correcter *newspaper-boy*". But the latter word is not given by the NED. Moreover, the earliest instance of *newsboy* is from 1801, and at that time *news* was not seldom used = 'newspaper'; there were also the compounds *newsbringer*, *newsbearer, newscarrier,* etc., which might serve as patterns for the formation of *newsboy.* It seems almost certain that we should not assume shortening. Nor is there any evidence in favour of *bull-pup* being an abbreviation of *bulldog-pup.* Probably *bulldog* was felt as a compound; since *dog* and *pup* are correlatives, the latter was easily substituted for the former.

Horn (Sprachkörper 5) quotes other instances of a similar type and explains them as shortenings. But even if *fire-office* and *fire-insurance-office* exist side by side, that is no proof that the shorter compound has developed out of the longer one. The compounds with *fire-* in the NED present such a variation of relations between the two elements, that a formation like *fire-office* can have nothing strange about it, and to have recourse to shortening in order to explain it is not theoretically necessary. How the term really arose is another matter, and the material in the NED is not sufficient for deciding. With regard to *Whitsun,* the NED gives a more plausible explanation than Horn. *Whitsunday,* originally *Whit-sunday,* was analysed as *whitsun-day* (cf. *Christmas day, Easter day*), which naturally gave rise to *whitsun eve, whitsun ale,* etc. On the other hand, *Whit Sunday, Whit Monday,* etc., gave rise to *Whit Week.* Thus there is nowhere any shortening. Why should *Sonnabend* necessarily be < *Sonntagabend* as Horn, l. c., Müller, and Güntert, Grundfragen 32, affirm? We have *Oster Tag* and *Oster Abend, Weihnachtstag* and *Weihnachtsabend;* why not *Sonntag* and *Sonnabend?*

With regard to certain Swedish instances reckoned by Noreen as elliptical, Sundén (Ellipsbegr. 227) prefers to explain them as analogical: *te(kopps)fat, arm(ljus)stake, tretton(dags)afton, kam(ulls)garn.* Some of these have never existed as three-linked. It is no doubt right that three-linked compounds are as far as possible avoided, but that does not prove that the two-linked synonyms are necessarily shortenings. We must know the history of each word in order to pronounce upon it.

An extreme case of these omissions is furnished by expressions like *Pater Noster*, being the name of the prayer thus beginning. *Dirge* is from Lat. *Dirige*, which similarly is the first word of a prayer; *Ave* and *Creed* (< *Credo*), *Tedeum, Requiem, Reseda* (from *Reseda morbis*, the beginning of a formula used as a charm when applying the plant to the reduction of tumours (NED), cf. Hirt 90), are other instances. (Cf. Weekley, Words 4 sq., 69, Sundén, Ell. Words 44, Wittmann 116).

10.5. A Note on E. Wellander's Theory of Ellipsis.

10.51. Wellander (Ellipsteori, and Studien II—III) has proposed a theory of ellipsis fundamentally different from the one I have adopted. Some remarks on it are necessary in order to show why I consider it untenable.

Wellander first enumerates, under the heading of *nicht-elliptische Wortauslassung*, the following groups: *Euphemismus* (cf. 11.8), *Aposiopese, Emphase* (cf. 14.83), *prosodische Kürzung* (cf. 10.182), *graphische Kürzung, graphisch bedingte Wortunterdrückung* (cf. 10.183), *ursprüngliche Kürze* (cf. 10.13. 1), and *semasiologisch bedingte Wortreduktion.* With the exception of the last, I shall have to pass over all these groups, although there are many statements that challenge criticism. The point of greatest interest are the two classes of *partial* and *total ellipsis*, together with the *Wortreduktion* (semantic reduction), which is closely allied to them. I shall follow Wellander in confining the discussion mainly to binary combinations consisting of adjective and noun.

10.52. *Definition of Ellipsis.* The term ellipsis is restricted by Wellander to omission in parallel members of a sentence, of the type *helles und dunkles Bier, deutsche Sprache und Literatur.* His definition (Studien II 89) runs: "Die Ellipse könnte also jetzt genauer definiert werden als die syntaktische Erscheinung, dass in korrespondierenden zweigliedrigen Gefügen mit einem Gliede gemeinsam dies gemeinsame Glied erspart wird, zunächst in einem Gefüge, *partielle Ellipse*, dann eventuell in beiden, *totale Ellipse* . . . . Die partielle Ellipse ist die nur einmalige Setzung eines doppelt oder mehrfach bezogenen Redeteiles, die totale Ellipse ist die bei häufigem Gebrauch eintretende (sit venia verbo!) keinmalige Setzung desselben Gliedes. Kürzer könnte die Ellipse gefasst werden als die teilweise oder gänzliche *Auslassung des Gemeinsamen in korrespondierenden Gefügen*"

10.53. *Partial Ellipsis.* What Wellander calls partial ellipsis, I have defined as an alternative method of formulating a certain mental content, more frequent than the corresponding longer scheme: *helles oder dunkles Bier* is more frequent than *helles Bier oder dunkles Bier* (cf. 10.13, *red and white roses*). Wellander, too, regards this as a clear case of "einmalige Setzung mit zweifacher Beziehung", and asserts definitely that "von einem "Auslassen" des Wortes *Bier* bei *helles* kann, historisch betrachtet, allerdings gar keine Rede sein" (Studien II 87). The logical conclusion would be that "partial ellipsis" is a type of *ursprüngliche Kürze*, but in order to bring it under the heading ellipsis Wellander postulates a "Verschiebung der syntaktischen Gliederung" through which *helles* alone assumes the meaning *helles Bier;* after this process, the impression of an omission is said to be in many cases justified (l. c. 88). This strikes me as a mere logical speculation, and it is not even applicable to all of Wellander's own instances. In the phrase *er vertrauete mir erstlich seine Säu, zweytens seine Ziegen und zuletzt seine gantze Heerde Schafe* (Studien III 48), the *Verschiebung* would imply that *seine Ziegen* alone acquires the meaning 'er vertraute mir seine Ziegen', which is absurd. Wellander has, I think, been misled by the circumstance that *Helles*, standing alone, may mean 'helles Bier', but he has not noticed that this is due to other processes: the adjective is substantivized, and then undergoes adequation, acquiring a unique meaning (cf. 14. 85). The latter, at least, is not the effect of shortening, but is a separate, independent development, which is not found in instances like *deutsche und englische Literatur*. Adequation seems to have occurred also in several of the instances adduced by Wellander in Studien III. They are therefore unsuitable for illustrating the effects of shortening alone.

When the theory of *Verschiebung* breaks down, we are left with the conclusion that partial ellipsis is a type of *ursprüngliche Kürze* (*no* omission), and total ellipsis a type of omission. It seems scarcely appropriate to bring these two under one heading.

10.54. *Total Ellipsis.* Total ellipsis is said to arise out of partial ellipsis "bei häufigem Gebrauch", and only in cases of parallelism (cf. 10.52). It may effect the headword or the qualifier of a binary combination. Typical instances are *Helles oder Dunkles* < *helles oder dunkles Bier;* and *Schirm und Mantel* < *Regenschirm und -Mantel.*

I think the matter will become clearer if we put the groups in tabular form.

1. *With parallelism.*
    a. Omission of headword = Wellander: Total Ellipsis of headword
    b. Omission of qualifier = ,, Total Ellipsis of qualifier
2. *Without parallelism.*
    a. Omission of headword = ,, Analogy
    b. Omission of qualifier = ,, Semantic reduction

It is obvious that these four classes exhaust the possibilities of omissions in binary combinations. The question at once arises how they are related to the *nicht-elliptische Wortauslassungen*, which are not restricted to other than binary combinations. Wellander would reply that ellipsis is due to syntactical causes, while the other classes have euphemistic, graphic, prosodic, or semantic causes. He mentions several times the difficulty of applying these distinctions, especially that between ellipsis of qualifier and semantic reduction. The latter is nowhere precisely defined, but it seems to embrace omission of qualifier in non-parallel combinations, as when *die internationale Arbeitskonferenz* is first thus called, and later on referred to merely as *die Konferenz* (Studien II 76. I prefer to regard this as a case of genus pro specie; (cf. 10.412).

To illustrate the difficulties in question, Wellander quotes the use of *Maschine* for *Nähmaschine*. This may be a case of semantic reduction; secondly, if *Nähmaschine* has been contrasted with *Nähnadel*, etc., it may be ellipsis; thirdly, it may not be a shortening at all, but a "Gebrauch kat' exoken", or, as I prefer to say, specialization or the unique use (Studien II 84). With regard to the first and third of these explanations, Wellander concludes that "theoretisch sind die semasiologisch bedingte Reduktion und der Gebrauch kat' exoken klar geschieden, in der Praxis dagegen ist es schwer, ja oft unmöglich, sie scharf auseinanderzuhalten". With regard to the distinction between reduction and ellipsis, Wellander admits that "es bleibt schliesslich nichts anderes übrig, als beide Erscheinungen in einem Zusammenhang zu behandeln" (Studien II 86), and "es hat deshalb keinen Zweck, bei der Besprechung der Einzelfälle eine Scheidung durchführen zu wollen, die nur ein theoretisches Interesse beanspruchen könnte" ('Studien III 51). In other words, we find that, when Wellander comes to handle his material he makes the heading *Ellipse* cover, (1) partial ellipsis, involving parallelism but no historical shortening, (2) total ellipsis of qualifier, involving parallelism and historical shortening, and (3) semantic reduction, involving shortening[1]) but no parallelism. In practice, then, as distinct from the theoretical argumentation, Wellander does not make the parallelism decisive for his class of *Ellipse*, and the reader is somewhat surprised that so much trouble should be taken to establish classes which cannot be used in classifying, and the difference of which "nur ein theoretisches Interesse beanspruchen könnte".

Omission of headword without parallelism is rare (I have explained the reason above, 10.411), but I do not see why it should be attributed to analogy.

10.55. *Total Ellipsis < Partial Ellipsis?* Total ellipsis is said to arise out of partial ellipsis "bei häufigem Gebrauch". The series *helles oder dunkles Bier* > *Helles oder Dunkles* may look tempting, but a varying degree of completeness is no infallible criterion of historical development (cf. 10.13 and 10.14). I have already noted that *Helles* and *Dunkles* illustrate a shortening plus a subsequent adequation. In *German and English Literature*, or *German Language and Literature* there is no such process. We might very well find in a catalogue of books the following headings: IV. *Germany*. 1 . . . 2 . . . 3 . . . 4. *Language and Literature*. I do not see why this should not be immediately understood as referring to the relevant *German* literature, even if the combination were perfectly new to the reader. We would then have total ellipsis without previous partial ellipsis. Could not a child, holding out two apples, ask a friend, "*Willst du den Roten oder den Weissen haben?*" without any previous "häufiges Gebrauch" of the phrase *rote und weisse Äpfel?* It seems to me that the only thing required is an adequate context (cf. 10.17). It is indeed probable that in some phrases the longer scheme has actually preceded the shorter one, in other words, some phrases show individual shortening, but we do not know to what extent that is the case. In view of the immense variability of the psychic processes it is unlikely to be a general rule. The process may vary for different speakers with regard to the same phrase, and any attempt to prove a rule seems hopeless.

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[1]) According to Wellander. I regard these cases as only sometimes shortened.

10.56. *The Parallelism.* It is obvious that an external criterion of ellipsis like "korrespondierende Gefüge" would be very convenient and easy to handle. The question is whether Wellander has interpreted its significance correctly.

I note first that, as explained above (10.411), the verbal (syntactical) parallelism is only the reflection of a contrasting or comparison of referents, and that such contrasting may have precisely the same morphological and semantic effect even if it is *not* expressed in words, but only exists in the form of mental context. Wellander has failed to notice the secondary nature of his criterion.

Further, Wellander neglects the indispensable discrimination between the causes, the conditions, and the form of shortening. Especially the two former are confused, the terms *Gründe*, *Bedingungen*, and *Ursachen* being used promiscuously. Wellander regards parallelism as a cause of omission: "Das Ausfallen eines Gliedes der Wortgruppe beruht nicht auf der Art seiner Bedeutung, sondern auf seiner syntaktischen Stellung als gemeinsames Glied" (Studien II 95). The expressions *syntaktische Gründe* and *syntaktisch bedingt* often recur (for instance II 104, III 51). It is, however, fairly evident that the causa movens of a linguistic process must be a *dynamic* factor, whereas the syntactical configuration of a phrase is a *formal* quality (cf. 10.18).

Wellander quotes among other instances: "Wer sonst vielleicht¹) die Zusammensetzungen *Regenmantel* und *Regenschirm* gebrauchen würde, der spricht, *wenn von beiden die Rede ist*²) getrost von *Schirm* und *Mantel: Und ausgerechnet bei diesem Wetter muss ich den Mantel und Schirm vergessen*" (Studien III 48). I am unable to comprehend why a speaker should not say, quite as *getrost: Und ausgerechnet bei diesem Wetter muss ich den Schirm* (or *den Mantel*) *vergessen!* The total omission of *Regen-* is of course conditioned by perceptual context, clearly referred to in the words *bei diesem Wetter;* with or without the parallelism this context is equally adequate, and equally necessary (cf. 10.17). Similarly with ellipsis of headword; Wellander argues (Studien III 1—2) that if we are speaking of *Jakob* and *Wilhelm Grimm*, we can easily leave out the surname and call them merely *Jakob* and *Wilhelm* (cf. 10.17). It seems to me that if we are speaking of *Oliver Cromwell*, not mentioning any other *Cromwell* or any other *Oliver*, it is quite as easy to use either name: we may call him *Oliver* or we may call him *Cromwell*. The importance of the parallelism is greatly exaggerated by Wellander. As I have shown (10.411) it is only the *form* of the shortening that is determined by the parallelism (more correctly: the contrasting).

Even if the parallelism is neither a cause nor a condition of shortening, it might

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¹) If this *vielleicht* is taken seriously, it simply breaks down the whole distinction that is being established. But in the sequel Wellander generally argues as if there were no *vielleicht*.

²) My italics.

still be useful as a criterion, if a definite type of shortening was found to be permanently correlated to it. The instance of *Nähmaschine* shows that this is not the case, and in practice, as Wellander admits (10.54), the results of shortenings with and without parallelism (ellipsis and semantic reduction) cannot be distinguished. Since it is the results, *i. e.* the shortened expressions themselves, that are the point at issue, it seems inevitably to follow that we have no use at all for the parallelism in classifying shortenings.

10.57. *Conclusions.* The result of this analysis is (1) that the class ellipsis comprises two disparate types; one of them, partial ellipsis, is not an omission at all and should not be bracketed with total ellipsis; and (2) that the shortenings effected through semantic reduction and ellipsis of the qualifier are often indistinguishable. On both accounts, the class that Wellander has sought to establish through the criterion of parallelism breaks down. We cannot avoid the conclusion that parallelism is not essential for shortening.

Wellander has, I think, confused classification and analysis. For the latter, every circumstance that has a bearing on the problem in hand should be noticed and explained. But if two or more of the processes involved give absolutely identical results, they are useless for discriminating types among these results — the shortenings. For a classification of linguistic phenomena, valid for a whole speaking community, we cannot utilize processes that vary from speaker to speaker, but only those that are constant concomitants of one or the other group of phenomena, and of that group alone.

Although admitting the occurrence of specialization of meaning not only as the result of shortening, but also through "Gebrauch kat' exoken", Wellander does not seem to have realized the enormous frequency of specialization without shortening. Having confined his investigation to one class, he is unable to weigh the claims of alternative explanations, and so is induced to include among *Auslassungen* and *Ellipsen* many instances that should have been otherwise interpreted. The groups that result are so heterogeneous that tenable definitions cannot be formulated, and the failure of the classification when applied to the linguistic material follows inevitably.

The inadequacy of a theory does of course not prevent explanations of details from being acceptable, and my numerous references to Wellander's writings show us to be in agreement on many points.

CHAPTER XI

CLASS IV. SENSE-CHANGES DUE TO NOMINATION

11.1. Theoretical Discussion.

11.11. *General Characteristics.* The intentional selection of terms by the speaker may involve a sense-change. Sometimes the referent is a new invention or discovery, calling for a name. The speaker may either invent a new name or transfer an old name to the new referent. Sometimes the referent is not new, but for some reason its habitual name does not appear to the speaker as the best way of denoting it in the actual situation. In this case, too, the speaker may invent a new name or transfer an old name to the referent.

The intentional naming of a referent, new or old, with a name that has not previously been used for it, will be called *nomination.*1)

The invention of a new name does not necessarily involve a sense-change, since the word in question did not previously exist, but through secondary processes a sense-change may follow. The transfer of an old name to a new referent involves a sense-change, at first in the individual instance, and later on, if the practice becomes habitual, as a permanent addition to the semantic range of the word. It is only permanent sense-changes that are of interest for the present study.

11.12. *Types of Nomination.* As indicated in 11.11, I make a distinction between words that are new coinings, and words that are intentionally transferred from one referent to another. The former type I shall call *intentional naming.* It is of no great importance for my purposes, but I shall have to say something about it on account of a secondary sense-change that may sometimes follow.

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1) Cf. the German term *Namengebung.* Collinson, Mod. Lang. Review 20, 1925, p. 103, suggests the term *onomathesia.*

Among the remaining types, in which a name is intentionally transferred from one referent to another, I make a first distinction with regard to the psychic causes that lead to the shift. They may be purely cognitive, or they may be more or less emotive. The former give rise to *intentional transfer* (non-figurative), the latter to *figures of speech.*

The cognitive causes of nomination are to be sought in the striving for a better adaptation to the symbolic and communicative functions of speech, the speaker's purpose being to give the listener a correct, adequate, unambiguous notion of the referent.

The emotive causes of nomination lie in the striving for a more adequate expression of one's own feelings, or a stronger effect on the hearer: the speaker chooses a word because it is better calculated to express or relieve his feelings, to make a stronger appeal to the hearer's feelings, or to present the referent in the light that the speaker deems desirable (cf. 11.15). I take the term emotive in a wide sense, as embracing also aesthetic motives, including stylistic purposes, and I regard as emotive, for instance, pet names and similar turns of speech peculiar to families and other small groups. The precise delimitation must be left to future research; we have not yet material enough to draw the line with exactitude.¹)

My three types correspond, with some modifications, to Wundt's classes (II 585): (1) *Namengebung nach singulären Assoziationen.* Jede solche Namengebung ist gleichzeitig Wortschöpfung und Be-

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¹) Cf. Marty's reference to aesthetic considerations: "weil die neuartige Verwendung von Zeichen, die in gewissen Bedeutungen schon gebräuchlich sind, dem Vorstellungsleben grösseren Reichtum oder anderen Reiz zu geben verspricht" (Unt. 520). The aesthetic motives may be regarded as pertaining partly to the expressive and partly to the purposive function.

Ogden & Richards (372 sqq.) discuss at length the distinction between what they term symbolic and emotive or evocative uses of language. "In strict symbolic language the emotional effects of the words whether direct or indirect are irrelevant to their employment. In evocative language, on the other hand, all the means by which attitudes, moods, desires, feelings, emotions can be verbally incited in an audience are concerned . . . In symbolic speech the essential considerations are the correctness of the symbolization and the truth of the references. In evocative speech the essential consideration is the character of the attitude aroused. Symbolic statements may indeed be used as a means of evoking attitudes, but when this use is occurring it will be noticed that the truth or falsity of the statements is of no consequence provided that they are accepted by the hearer" (l. c. 376).

deutungswandel, letzteres insofern als sich das neue Wort durch irgendeine Laut- oder Begriffsassoziation an bereits bekannte Wörter anlehnt. (2) *Singuläre Namenübertragung.* (3) *Die sprachliche Metapher.*

11.13. *Intentional and Unintentional.* The common characteristic of all nominations is the fact that a selection of terms takes place; the speaker more or less intentionally chooses his phrase. His attention is directed not only towards the content of his speech, leaving the formulation of it to the automatic activities of lower centres, as in ordinary discourse (*die gewöhnliche Sprechtätigkeit*), but he is also thinking of *how* he is expressing himself. The speaker's intention is not only "die auf das augenblickliche Bedürfnis gerichtete Absicht, seine Wünsche und Gedanken anderen verständlich zu machen" (Paul, Prinz. 32), but his intention includes an effort to present his thoughts in a special form.

The distinction between intentional and unintentional — in respect of the *form* of the expression — is often very difficult to apply in practice, but it seems necessary to make use of it. There is, obviously, an immense difference between the simple regular transfers, exemplified in ch. 12, and an elaborate poetical metaphor; but both may be transfers based on similarity. I do not see how we can distinguish the two theoretically except by drawing a line between intentional and unintentional. One further point, already touched upon in 7.33, may be mentioned. The unintentional changes, being based on psychic processes of a simple kind, can be classed on a psychological basis; the intentional changes, where the shift may be based on a purely individual and momentary combination, are not so classifiable.

Generally speaking, intentional transfer (non-figurative) is not so difficult to distinguish from regular transfer. The group that makes difficulties is the third: figures of speech. There are among them indubitable instances of intentional invention, but it is no less true that figures of speech are characteristic of all vivid oral speech, where the term "intentional", in a strict sense, seems scarcely applicable. This circumstance would seem to indicate a solution by means of an additional line of demarcation, separating clearly intentional figures from the rest. But no one has been able to say how such a line should be drawn in order to be of practical use in classifying. Although a tripartition, into clearly intentional, clearly unintentional, and a middle group which I cannot define, would perhaps be theoretically correct, I have, for practical reasons, to be content with a bisection of the field; I retain the terms intentional and unintentional, and I define them so as to fit the linguistic material.[1]

I take the term intentional in a wide sense. The amount of intention directed towards each individual word may be at a minimum. We have to reckon with an emotional tension or enhancement (see 11.15) for which the speaker strives to find release, and which he strives to impress on the listener. He will then also strive, more or less automatically in respect of each separate word, but intentionally in respect of the whole, to keep his expression at a certain stylistic or emotional level, within the circle of words capable of expressing or carrying the intended emotional colouring, or capable of making the intended impression on the listener. Words arising in his mind will be accepted if they fit the speaker's general attitude and intentions, and rejected if they do not; in so far a selection really takes place (Cf. Carnoy 90 sqq). By taking intentional in this way, I am able to include under that heading the whole mass of metaphors, popular or poetical, which would not otherwise be possible.

It is evident that practically any sort of sense-change that can be produced unintentionally, can also be produced intentionally; *e. g.*, an analogical formation or a shortening leading to a sense-change. I have stated in ch. 7 my reasons for not making the degree of intentionality a basis of classification with regard to types other than the transfers.[2]

There are clear cases of intentional, as well as of unintentional changes. There are also many cases in which it is difficult or impossible to apply the distinction; a circumstance which attends all semantic classification. With regard to the doubtful instances, I propose to apply the following method. We know that unintentional changes must be constituted by psychic processes simple enough to occur without deliberate intervention on the part of the speaker, and involving modifications small enough and natural enough to pass unperceived by both speaker and hearer. There are a number of types of sense-change that can plausibly be shown to be unintentional in this manner. Other types are perhaps not demonstrably unintentional, but they are so similar to the previous group in circumstances and general characteristics that they can reasonably be classed along with it. All types which are not in this way unintentional, or closely related to unintentional types, are preliminarily classed as intentional. Additional research into the details of this question will perhaps draw the line differently, but at present I do not see any other way of solving the difficulty and evading purely arbitrary decisions.[1])

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[1] Another method would be to distinguish in the first place emotive and non-emotive transfers; the former would be equivalent to the figures of speech, and would form class IV; the latter would comprise regular transfers and intentional transfers based on similarity, and would form class V. But intentional transfers based on other relations could not be moved into class VI (permutations), because that would destroy the unity of the class. The only way would be to let them form a class of their own, together with intentional naming. But that would, on the other hand, separate the two types of intentional transfer, which seems contrary to sound principles. And if we join both types of intentional transfer together, we are back in the classification I have adopted, with the formal difference that I make emotive and non-emotive intentional shifts form one class, instead of two.

[2] Nyrop (IV 396 sqq.) summarizes the ancient dispute as to whether objects have their names by nature or by convention. On p. 414 sqq., he gives numerous French instances of intentional change.

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[1]) Wellander (Studien I 139) restricts *Namengebung* — corresponding in the main to this class — to cases where "unter Benutzung des vorhandenen Wortschatzes, unabhängig von fremdsprachlichen Einflüssen, eine wirkliche Wahl getroffen wird". He quotes Marty (Unt. 632) for the term *bewusste Uebertragung*, and for the following characteristics: "ich meine, was bei ihr vorhanden sein musste, war: (1) das Bewusstsein der neuen Bedeutung in Unterschied von der früheren, (2) die Absicht, sie durch das alte Bezeichnungsmittel mitzuteilen, (3) ein Anlass dafür, gerade dieses Mittel zu wählen, trotzdem dessen frühere Bedeutung nicht mit der ihm neu zugedachten verwechselt wurde" (See further Marty, Unt. 595 note 2, and 646).

This definition might perhaps be accepted for intentional transfers, although even for them it seems to me to stress the consciousness of the process too emphatically. But for the figures of speech it would, as far as I can see, cut across the metaphors. In the enumeration of metaphors, I think Wellander includes instances that do not fall under his own definition, and in which it is very difficult to believe in a conscious selection. In the rapid flow of speech, where metaphors are created by lightning associations, there is not time to compare the primary meaning and the actual meaning, in three movements. A passing association is caught on the wing, if it agrees with the speaker's intentions, if it presents the referent in the desired light, and suits the style employed for the moment. If intentional is restricted according to Marty's definition, we should have to establish a third large region between the strictly intentional and the strictly unintentional transfers, and, as I have already stated, I am unable to see how such a tripartition could be effected so as to be of practical use. Wellander gives no information on this point.

Sterzinger states with regard to *Steigerung* (enhancement, see 11.15), which

11.14. *Intentional or Singular?* In Wundt's classification we find a type corresponding in part to what I have here called intentional sense-change, and termed by Wundt *singulärer Bedeutungswandel.* Singular sense-changes are "alle diejenigen Erscheinungen des Wechsels der Wortbedeutungen, die aus individuellen, an spezielle Raum- und Zeitbedingungen gebundenen Motiven hervorgehen", The distinction between singular and regular is based on the fact that in the former case "die Ursachen die ihm bestimmen, einem in dieser Kombination nur einmal vorhanden gewesenen Zusammenfluss von Bedingungen ihren Ursprung verdanken. Zuweilen lässt sich dieser singuläre Ursprung direkt dadurch nachweisen, dass er auf einen bestimmten Urheber zurückzuverfolgen ist; in vielen andern Fällen kann er nur aus dem ganzen Charakter des Vorgangs erschlossen werden" (II 584). "Singulärer und regulärer Bedeutungswandel unterscheiden sich daher im allgemeinen derart, dass jener auf die *einmalige,* dieser auf die *mehrmalige unabhängige Entstehung bestimmter Motive* zurückweist. Hieraus ergibt sich, dass diese Gegensätze hier einen etwas andern Inhalt besitzen als bei dem Lautwandel. Natürlich ist aber auch bei dem singulären Bedeutungswandel nicht notwendig *ein* Einzelner der Urheber einer Begriffsübertragung. Der Unterschied der einmaligen und der vielfältigen Entstehung liegt vielmehr darin, dass der singuläre Vorgang beim Bedeutungswandel jedesmal den Charakter einer willkürlichen Handlung an sich trägt, während bei dem regulären die bei allen oder den meisten Individuen einer Gesellschaft wirksamen Assoziationsmotive mit dem den Triebhandlungen eigenen Zwang die Umwandlung der Begriffe bewirken" (II 469. Cf. Funke, Sprachform 102, Roudet 684 sqq.).

Marty has pointed out (Unt. 594) that Wundt employs the word *willkürlich* in two senses: "einstweilen in dem Sinne, dass eine bloss *zufällige* Beziehung zwischen der alten und neuen Bedeutung bestehe (nicht eine innere, in der Natur der Begriffe liegende), andernteils in dem Sinne, dass eine solche Beziehung eben nur im Zusammenhang mit Willkür im Sinne eines Wollens und *Wählens* wirksam werden, dieses aber nicht Sache der Gesamtheit sondern nur einzelner sein könne". In the passage just quoted from Wundt II 469 it is evidently the second of these

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he considers as constitutive for the figures of speech: "Das Steigerungsphänomen ... zeigt sich zunächst als instinktiver Trieb, die Protokolle sprechen gewöhnlich nur in Schlagworten von seinem Auftreten, gebrauchen die Bezeichnungen "unwillkürlich" und "automatisch", so elementar und plötzlich erscheint er ohne irgend welche vorherige Besinnung. Durch die starke Erregung aber wird er sehr rasch bewusst, und seinen Aufschliessungskraft wird förmlich gewaltsam nach allen Seiten erprobt. Ist das nun schon vielmal geschehen, so kann schliesslich die sozusagen technische Seite der Erscheinung, das Vergrössern und Vervielfachen, auch absichtlich und gedächtnismässig angewendet werden" (Zs. f. Ästh. 12, 78). What Sterzinger here describes as spontaneous and automatic is clearly the progressive tendency itself; what I am discussing is its expression. If I understand him correctly, what he calls the *Aufschliessungskraft* of the tendency is what I am speaking of when I say that words which agree with the predominating tendency are adopted and made use of in preference to those that do not.

interpretations that is intended, since Wundt speaks of *eine willkürliche Handlung*. That is also the sense in which Wellander takes the term. And so, if *singulär* and *willkürlich* in this sense really coincide, there would be no difference between the two standpoints.

It is regrettable, although excusable, that Wundt has not worked out his principles in greater detail. It seems scarcely probable that intentional and singular should always coincide. They may do so; for instance in the case of *Mercury*. The name of the messenger of the gods is first transferred to the swiftest of the planets, and later on to a liquid metal. The basis of the transfer in each case must have been a "singular" association in the mind of an individual, plus an act of intentional naming. But there are other cases where intentional and singular do not coincide. We may take as an instance the much-discussed *Moneta* — assuming that the usual theory is correct, and Moneta is a name for Juno. The earliest Roman mint was, according to Livy, situated in the temple or temple precincts of Juno Moneta on the Capitol, and in some way the mint itself received the name of *Moneta*, which was retained as the mint was later on removed to another place in the city. Wundt regards this as an instance of singular naming.

The combination of circumstances leading to the shift was clearly singular. But was the naming necessarily intentional? Of course, we do not know anything about the real facts of the case, but since I am using the name merely for purposes of illustration, that is not for the moment relevant. We may assume that a Roman on his way up to the temple would say, "I am going up to Moneta", and the speaker's person or the circumstances would indicate to his interlocutor whether he meant the temple or the mint; just as a London financier of to-day may say to a friend, "I am off to Threadneedle Street", and his friend will know that the object of his visit is the Bank of England. For obvious reasons Threadneedle Street cannot become the habitual name of the Bank, but in the case of Moneta the shift was possible. No doubt for quite a large portion of the population of Rome the mint was by far the most important of the two institutions called *Moneta*, and so that meaning might become more frequent than the original one. This process is gradual, and in my opinion need not be at all intentional. The shift belongs to class VI, permutation.

I conclude that a sense-change based on a singular combination of circumstances need not necessarily be intentional; the singular situation may lead to a "regular" change. Since this change may be of any kind, a distinction regular/singular would cut across my classification, and it is therefore ruled out. (Cf. Marty's criticism, Unt. 560 sqq., esp. 593—594).

11.15. *The Causes and Conditions of Nomination.* The following remarks apply only to intentional transfer and figures of speech; intentional naming is of subordinate importance.

I stated above that the cause of a nomination is the circumstance that the habitual term, or the term that first offers, does not appear suitable for the occasion. The speaker finds that another word, which he is able to make use of, will serve better. It may be a more adequate symbol of the referent in the momentary situation; it may communicate the relevant mental content in a more precise manner; it may express the speaker's thoughts or feelings with greater exactitude; or it may, in connection with the three factors mentioned, be more effective in its action on the hearer, and so be better fitted for the speaker's purposes.

The principal causes of nomination are thus to be found in the speaker's striving to adapt speech to his purposes; in other words, to make speech fulfil its functions as effectively as possible.

With regard to the causes which lead to employing figures of speech, I refer to the investigations of Sterzinger, Kainz, and others. According to Kainz (3 sqq.), who quotes Sterzinger, Chr. Ruths, Ch. Bühler, R. M. Werner, and others, our psychic processes are characterized by a tendency to *Steigerung* (enhancement; cf. Elster I 15 on die ästhetische Anschauung, and Müller-Freienfels, Psych. d. Kunst II. 27 sqq.). "Unter Steigerung verstehe ich jede während eines geistigen Produktionsvorganges sich vollziehende Umänderung, die bewusst oder unbewusst teleologisch orientiert, eine Erhöhung, eine Intensivierung der erstrebten Wirkung zum Ziele hat. Hierher gehört: jede Verstärkung, Vergrösserung, Vervielfachung, Häufung (additive Vereinigung wirkungsvoller Züge), jede Kombination und Verschmelzung von Einzelzügen, die ein wirksameres Ganzes ergibt, jede Art von Konzentration und Zentralisation. Massgebend dabei ist nicht letzten Endes die mathematische (quantitative) und dynamische Erhöhung, sondern die intensivierte Wirksamkeit, die auch gelegentlich durch Verminderung, Verkleinerung erzielt wird, also durch scheinbar Regressives. Das, worauf es ankommt, ist die Entfernung von einem aus der Gesamteinstellung des Künstlers sich ergebenden ästhetischen Indifferenzpunkt, nach der Seite des in seinen Augen ästhetisch Wirksameren, von ihm als künstlerisch wirksamer Erkannten. Der Begriff der Steigerung ist ein Beziehungsbegriff, man kann ihn nur dort exakt und sicher anwenden, wo eine Beziehung, eine Vergleichsmöglichkeit vorhanden ist" (l. c. 8).

The human mind always remodels its material, and this remodelling goes in the direction of enhancement, enlargement, intensification, that is to say, in a progressive direction. We remember houses, or rooms, as bigger than they really are; when we relate an event, we emphasize certain traits, we bring out contrasts, and so forth, in order to heighten the effect: we unconsciously exaggerate when we tell a story. Among the psychic causes of enhancement or progression, Kainz first mentions the progressive substitution as a general, elementary tendency of our mental processes; this is a factor in the imaginative activity. Of the specific psychic causes, the first and most important is the need of "erhöhte Abreaktionsmöglichkeit", increased possibilities of emotional relief. We seek intensified expressions for that which agitates our feelings, and this leads to progressive substitution, especially in the case of an intense excitement with a polemical or apologetic purpose. In addition to the pleasure in spiritual productivity, we have to reckon with "das kathartische Moment der Aussprache, die befreiende Entladung die bei steigernder Aussprache wirksamer ist als beim tatsachen-treuen Bericht. Die Steigerung kommt hier den Ausdrucksbedürfnis entgegen. Das fällt in die kundgebende Funktion der Sprache". A second motive lies in the need of and pleasure in mental productivity, the formative tendency of imagination, "der Lust am fabulistischen Trieb", the desire to be artistically active and creative. The speaker feels that he is the master of his material, and is not fettered by it.

A third motive is the elementary tendency towards what is fresh, important, and most progressive in any direction or of any kind; the desire for expansion, for an extension of the ego, for possibilities greater than those offered by real life. Here the emotional factor is predominant. A fourth motive is the desire for effect, the striving to give to an utterance a higher tension, a more intense impressivity. We underline, we emphasize contrasts; we seek the effective, the palpable. (Kainz 26 sqq.).

With regard to the causes of our finding pleasure in the poetic figure, Sterzinger (Arch. 29) states that the most important is the fusion of two notions or images, and, in the second place, the occurrence of emotional elements and pseudoperceptions (centrally evoked perceptions).

On the whole we find, as we might expect, that the factors leading to the use of figures of speech involve the expressive and effective (purposive) functions of speech, not the symbolic and communicative functions. To the expressive function belong the first three of those enumerated by Kainz. The problem seems to require much additional systematic research before it can be said to be satisfactorily elucidated, and I have to leave it with these brief remarks.

With regard to the conditions of nomination, we cannot make precise statements. We can only say that the possibility of nominations is limited by the hearer's ability to understand the new meaning; in other words, the fuller the context and the more clearly the referent is indicated through the context, the greater liberty the speaker enjoys in his choice of terms. When Keats begins an Ode, "Thou still unravished bride of quietness, Thou foster-child of silence and slow time", these far-fetched metaphors are comprehensible to the reader, and thus possible, because the heading of the poem gives its topic: *Ode on a Grecian Urn*.

The speaker's choice is generally not so wide. The intentional nature of the transfer or figure of speech opens a much larger field to the speaker's imagination than do the unintentional psychic processes, but this does not mean that the process is entirely arbitrary. The main groups show certain predominant types. We use personal names for what a person produces, place names for what happens at or comes from a place, and so on; and new instances are easily formed and as easily understood in analogy with the great mass of shifts with which every speaker is familiar.

11.2. Intentional Naming.

Intentional naming is the coining of a new name to denote a referent, whether new or old. I shall mention briefly some of the more important types.[1])

Entirely new words, at least successful ones, are comparatively rare, The most famous of them is probably *gas*, coined about 1600 by B. van Helmont, who states that "ideo paradoxi licentia in nominis egestate halitum illum 'gas' vocavi, non longe a 'chao' vetere secretum" (quoted Oertel 163). In modern business such creations are somewhat more common: *kodak*, *Tono-Bungay*.

In most cases, old words or parts of them are employed to form new words. The use of shortenings has been mentioned in the preceding chapter. Portmanteau-words are formed by compounding parts of old words: *anecdotage, galumph, slithy* (see Pound and Bergström).

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[1]) Cf. Wundt II 586 sqq., Marty, Unt. 662, Carnoy 254 sqq., Wellander, Studien I 138 sqq. (but note that some of Wellander's instances are not true cases of nomination), Beckman 150 sqq., 167.

Naming on a large scale takes place in connection with notable advances in knowledge, or other modifications or upheavals in our social or intellectual life. The Great War is an outstanding instance. According to Nyrop (Etudes 29) it manifests its influence on language mainly in four different ways, the creation of new words, the giving of new meanings to old words (*i. e.*, intentional transfer), invasion of slang words in literary language, and extensive borrowing of words. With regard to the first class, Nyrop states, however, that he has found surprisingly few really new words. I may add that many of Nyrop's instances are analogical formations, thus *amerrir* (an aeronautic word on the analogy of *atterrir*) *désannexion, ententiste, Kaisériole,* a humorous formation after *Carmagnole,* and others.

The puristic tendency in Germany has led to the coining of numerous words intended to replace technical terms of the international type: *Fernsprecher, Radfahrer, Drahtbericht, Kraftwagen, Selbstfahrer, Schriftleitung, Anschrift, Seitenweiser, Beistrich,* and many others. English instances of the same kind are *foreword, folklore, birdlore, bodeful, betterment, forebear, belittle, wheelman, happenings,* etc. (Cf. Fowler, MEU s. v. Saxonisms, and 9.331 note). Intentional naming and analogy here touch. The same type of compounds is often used to obtain an emotional effect, generally humourous: *devil-dodger* or *sky-pilot* for clergyman, *inkslinger* for writer, *sawbones* for surgeon, and so on. *Trotters* for feet, *peepers* for eyes, *shiners* for precious stones, and other slang words of similar type, belong here.

The compound type is the one in which a sense-change might be said to be involved, but even there the matter is somewhat doubtful, and I mention it only for the sake of completeness. When a vessel was built capable of sailing in the air, it was termed a *ship;* this is a substitution, as explained in ch. 8. But if we assume that the vessel is at first called an *air-ship,* it might be said that since this is a totally new compound, we have no longer a case of substitution, but of intentional naming. However, by being called *air-ship* the new referent is classed as a ship, and the range of the word *ship* is thus increased, since to linguistic feeling an *air-ship* must be a species of the genus *ship.* In this way it might be argued that the naming indirectly causes a sense-change. If, subsequently, the simplex *ship* is used to denote the air-ship, there are alternative explanations. Wellander regards it as a shortening; it may also be a case of genus pro specie. Cf. 10.412. Substitution and intentional naming here come very close to each other; either may be adduced in explanation. Cf. 8.2.

11.3. Intentional Transfer (Non-figurative).

11.31. *General Remarks.* Intentional transfer is the intentional denoting of one referent by a name that really belongs to another, the reason being a desire for a more adequate symbolization or communication; that is to say, the causes are cognitive, not emotive, in character. The transfer is founded on some similarity or other relation between the primary referent and the actual referent.[1]) (Cf. Wundt II 589 sqq.)

Intentional transfer is distinguished from regular transfer by being intentional (see 11.13). Figures of speech differ from intentional transfer by the emotional nature of their causes (see 11.4).

Some writers have sought to obviate the difficulties involved in the two distinctions just mentioned by extending the term metaphor to cover the whole domain of transfers and figures. But this only shifts the difficulty to another place in the system, We cannot get rid of it, since the two distinctions are too important to be neglected in any system of classification.

With regard to the further classification of intentional transfers, the question is whether there are any psychological factors involved that offer a suitable basis for distinctions, or if other points of view should be applied. Since this type is closely related, on the one side to metaphors, on the other side to regular transfers and permutations, it is desirable to find principles capable of application to all these classes.

It seems to me that there are two possibilities. The first of them is to distinguish transfers based on similarity from those based on other relations between the two referents involved. We shall find that the same distinction is applicable to metaphors, and that it constitutes one difference between regular transfers and permutations. Since it is thus evidently an important point of view, I shall take it for my first basis of classification. Secondly, it is possible to class the transfers according to the parts of speech involved. It is not quite clear at present whether there is really a constitutive difference between the sense-changes in nouns, adjectives, verbs, and particles, but the distinction between these classes of words is well-known and offers a handy method of reducing the size of the groups. It may therefore be employed with advantage until a better method is found.

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[1]) The primary referent is the original referent of the word used. The actual referent is the one to which the word is actually applied when transferred. Similarly I use the terms primary and actual meaning.

11.32. *Transfers based on Similarity.* Intentional transfers on a large scale occur in the naming of new referents in the course of scientific, technical, or social progress.

English instances are to be found in most scientific works that handle new material or new problems. In the present treatise, the terms *substitution, nomination, permutation,* are instances of intentional transfer based on similarity; the similarity is sometimes admittedly vague, but it is there nevertheless. As in regular transfers, the similarity may apply to the appearance, the function, the position, etc. of the referents. We speak of the *walls* of a cell, and the vertebra supporting the skull is named *Atlas.* Bain (I 163) instances from anatomy *pons varolii,* the *labyrinth* of the ear, etc. "All terms derived from mechanical forces are adopted in the description of social forces: *impulses, propulsion, momentum, resistance, inertia, cohesion, attraction*. . . Again, societies are described as *rude, polished, advanced, complicated*" (Bain I 142). Most of Bain's instances of "intellectual similitudes", being taken from poetry or elevated prose, have a tinge of the emotive element, and thus would belong to metaphors rather than to the present type (cf. Wundt II 588).¹)

In popular speech, it is often very difficult to ascertain if a transfer is intentional or regular: Engl. *crane,* German and Swedish *Kran,* for a hoisting apparatus, probably from the likeness of the long beam and hanging rope to the neck and bill of the bird; Engl. *saw-horse,* German *Bock; wandering,* used of diseases, pains, etc., 'moving from one part of the body to another (without clearly ascertained reason)'; and many others, may be due to an act of intentional naming, but unintentional origin is also possible.

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¹) Some of Wundt's (II 591) and Wellander's (Studien I 139 sqq.) instances are not real transfers, but should rather be interpreted as exemplifying a fresh delimitation of the referent: substitution.

11.33. *Transfers based on Other Relations.*

11.331. *Proper Names for Objects.* Proper names are employed to denote scientific units of measurement, the transfer being intentional and in honour of the possessor of the name: *ohm, ampère, volt, coulomb, brinell* (cf. Weekley, Words 40).

In terms of popular formation, the development is often uncertain. According to Greenough & Kittredge (256) nobody ever said *sandwich lunch* and *spencer coat,* the short terms *sandwich* and *spencer* being used from the beginning (Weekley, Words 39—40. The names are from an Earl of Sandwich and an Earl of Spencer). In other cases where a proper name is used for an invention or discovery, shortening is demonstrable. Thus a *shrapnel* is a shortening of the full name *shrapnel shell,* named from the inventor, General Shrapnel (cf. 10.431). This may be the case also for *gatling, hotchkiss, lebel, mauser, remington, winchester, chassepot, mackintosh, burberry, bluchers, wellingtons, chesterfield, raglan, havelock, vandyke, brougham, macadam,* and others. (Cf. the lists given by Fischer Engl. Stud. 23, Aronstein ib. 24, Reinius 148 sqq., Östberg 98 sqq., Nyrop IV 376).

Other cases, outwardly similar, may be permutations (cf. 13.24). It is necessary, if we want to be certain, to trace the history of each word. The NED states that, for instance, *tam o' shanter* is a shortening of *tam o' shanter bonnet,* but the earliest quotations show the shortened form. What evidence is there for a shortening?

11.332. *Place-names for Products or Events.* The use of place-names for products of the place can no doubt be explained in more than one way, and it must in many cases remain doubtful what the correct explanation is. When we speak of *mokka, java, madras, calico, china, a basque, a jersey, camembert, holland, cremona, bordeaux, champagne, boston* (a game at cards), etc., the names in their secondary use may be shortenings of *mokka coffee* etc. (cf. 10.431, and see Greenough & Kittredge 255, Weekley, Words 47; Nyrop IV 391). Similarly when *an angora* is used for *an angora cat.* (See Efvergren, passim).

When place-names are used for events which have happened at the place, intentional transfer is also possible, but I believe it is less likely. An alternative explanation is permutation (cf. 13.251); but *Waterloo,* for the battle of Waterloo, may be due to stylistic considerations, in which case we have a metaphor (11.77).

11.333. *Christian Names.* This is, I think, the best place to class the giving of a christian name to a newborn individual: it is undoubtedly an intentional naming, and even if the choice is not entirely uninfluenced by emotional factors, we can scarcely class the name as a figure of speech.

Proper names have characteristics of their own, which are not altogether easy to disentangle, and which have occasioned much debate. It is not necessary to go into the matter at length. I shall only state that various difficulties seem to be avoided if we regard *Richard*, as denoting Mr. Richard Brown, and *Richard*, as denoting Mr. Richard Smith, as a pair of hononyms. The *Richards* do not form any distinct category of human beings, and we are therefore not justified in speaking of the name as being still the same name, although with different meaning, as we do when, for instance, *ship* is used to denote various new inventions in the way of vessels: these belong to a recognizable category with peculiar characteristics of its own. (Cf. Conrad, Arch. 19, 399). This interpretation of the facts is in strict accordance with my definition of meaning, which makes meaning dependent on, among other things, the actual characteristics of the referent.

Possibly we should explain in the same way the application of a family name to a new member, even if it is not intentionally transferred, in the strict sense of that term, but inherited or acquired by marriage according to the customs, regulations, statutes, etc., of the community.

11.4. Figures of Speech.

11.41. *Introductory and Definition.* Figures of speech are intentional transfers which involve emotional (incl. aesthetic) factors. They are intended to serve the expressive and purposive functions of speech better than the "plain statement".¹)

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¹) Bain (I 135) takes into consideration only the latter point: "A figure of speech is a deviation from the plain and ordinary way of speaking for the sake of greater effect". Note that the deviation as such arrests the attention of the hearer, and thus is of importance for the effect of the figure. "Surprise tends to increase the intensity of every emotion with which it blends, or by which it is rapidly followed", and "the effect of surprise is to make us attend to the event that surprises us" (Shand 422, 430). The same observation is thus formulated by Selz: "Stimmt die überwiegende Mehrzahl der Bestandstücke eines Erlebniskomplexes in irgend einer Hinsicht überein, so hat ein demselben Komplex angehörendes Bestandstück, das in dieser Hinsicht von ihm abweicht, die Tendenz,

The distinction I have adopted, between purely cognitive processes, and those that are more or less emotive, is of course very difficult to apply in many individual cases. Plain statements and figures merge. The emotional element may also fade in the course of time, so that the figurative expression assumes the appearance of an ordinary name for the referent (see 14.52, adequation). In that state figures are indistinguishable from other transfers or permutations, if we do not know their earlier history.

When we approach the question of classifying the figures of speech, the problem arises whether the traditional classification of the rhetoricians should be retained, or other principles adopted (cf. Wundt II 594 sqq.). The old classification seems to have no uniform basis. It is partly based on logical considerations, partly on the form of the expression, partly on the nature of the subjective attitude expressed in the figure. It might be possible to substitute a classification based altogether on psychological factors. But here we encounter two difficulties. It is evident from the analysis that different types of mental content can be expressed through one and the same figure (cf. Sterzinger, Arch. 37, 365, 383). Secondly, no satisfactory psychological investigation of the figures of speech has as yet been published. Fortunately, it is not necessary for the purposes of the present work to go into the matter at length. Many figures of speech do not lead to permanent sense-changes of single words, and are thus of no further interest to us. The only figures we have to discuss are *metaphor*, *hyperbole*, *litotes*, *irony*, and *euphemism*, and it does not appear impossible to establish a working hypothesis explaining their nature and furnishing reasonable definitions.[1])

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beachtet zu werden" (Selz II 496). In accordance with this view, I regard as figurative, for instance, the use of spurious conditional clauses to express an antithesis: *if something was done, it was he that did it.* The antithesis as such is not intensified, but the listener's attention is called to it by its being expressed in an unusual way. It would be wrong to analyse this form on the analogy of conditional clauses used for imperatives; in that case the conditional clause is a down-toner. — I refer to Bain I 135 note for the import of the term *trope*, which I do not use. See also on these matters Elster I 40—41, 374 sqq., Meyer, Stilgesetz 110 sqq., and Larsson 61, 63.

[1]) Synecdoche and metonymy are often regarded in semasiological works as main classes of sense-change, but from the point of view which I have adopted, they must be split up into groups belonging to different classes. Synecdoche, according to Bain (I 182 sqq.) is founded on similarity, and consists in putting

11.42. *The Delimitation of Metaphors.* The true definition of metaphors has been the subject of much controversy (see Sterzinger, Arch. 37, 363 sqq., with quotations from various authors, and Wundt II 594 sqq.). The previous definition of figures of speech provides a genus proximum; we have now to find a differentia specifica serving to discriminate metaphors from other figures.

Stählin (Met. 14) gives a definition that may be rendered as follows: ''Metaphors are figures of speech in which a referent is designated by the name of another referent in such a fashion, that (1) the transfer does not involve an essential identity of the two referents, (2) the designation is taken from another sphere of experience than that to which the actual referent belongs, and (3) the process of transfer is not expressed.''[1]

The first criterion mentioned by Stählin — that the transfer does not involve an essential identity of the primary referent and the actual referent — serves to distinguish metaphors from regular transfer, in which the point of similarity is some essential characteristic common to the referents. I take this fact as connected with the distinction between intentional and unintentional, assuming that an essential common element makes it possible for a word to be transferred unintentionally from the primary referent to the actual referent, the ensuing modification of meaning passing unperceived. On the other hand, when the common element is less prominent (see 11.53) it is perceived and apprehended only in circumstances which justify us in calling the transfer intentional. Essential is a vague term, but I cannot find a better one. It must be taken to mean essential for the momentary context.

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(1) the species for the genus, (2) an individual for a genus, (3) the genus for the species, (4) the Concrete for the Abstract, (5) the Abstract for the Concrete. In my classification, changes of these kinds are classed as intentional transfers, metaphors, regular transfers, or permutations, according to the circumstances of the change.

Metonymy (Bain I 186) is founded on contiguity, and consists in naming a thing by some accompaniment. The accompaniment may be (1) the sign or Symbol, or any significant adjunct, (2) the Instrument for the Agent, (3) the Container for the thing contained, (4) an Effect for a Cause, (5) a Maker for his Works, (6) the name of a Passion for the name of its Object. Closely related to these forms of metonymy are the forms of synecdoche founded on contiguity: (1) Naming a thing by some Part, (2) the reverse operation of using the Whole for the Part. Like the synecdoches mentioned above, these forms split up into various classes in my system.

[1] Bain (I 159) says that a metaphor ''is a comparison implied in the mere use of a term''. Cf. Carnoy 275. On the origin of the metaphor, see H. Werner, Sterzinger, and Cassirer, Spr. u. M. 68 sqq.

If intentionality and the lack of essential identity thus are parallel phenomena, it would seem as if we might content ourselves with one of them as a criterion for metaphors. However, in my opinion, metaphors are not always founded on similarity, but sometimes on other relations (see 11.55), and for these latter there can of course be no question of identity, essential or not. The criterion of intentionality is therefore indispensable. I retain the other criterion as a useful addition, applicable to the large group of metaphors founded on similarity, and serving to discriminate them from regular transfer.

Stählin's second criterion — that the designation is taken from another sphere of experience — is evidently closely connected with the one already discussed, but, as far as I can see, they do not agree. "Sphere of experience" is, admittedly, a vague term; essential identity is somewhat more definite, and should for that reason be given the preference. When we use the word *jew* for a grasping money-lender, there is no *essential* identity involved, since the money-lender is not literally a jew; the designation is figurative. But it seems to me doubtful whether we should say that the designation is taken from an alien sphere. I think it best, therefore, to reject this criterion. We may adopt, for descriptive purposes, Wundt's formulation concerning the metaphor as "eine Gesamtvorstellumg . . . in der disparate Teile gemischt sind" (Wundt II 600), taking disparate to mean not identical in any essential respect.

Stählin's third criterion — that the process of transfer is not expressed — is equivalent to saying that the relation between the primary referent and the actual referent is not indicated, but has to be educed by the hearer. This serves to discriminate metaphors from similes, comparisons, and allegories. (Cf. 11.51 and 11.52, and Bain's definition of the simile: the simile consists in the formal and avowed comparison of one thing to another (I 170). See also Stählin, Met. 95 sqq., and Sterzinger, Arch. 37, 384).

We have thus far been able to establish criteria distinguishing metaphors from regular transfers, on the one hand, and from similes, comparisons, and allegories, on the other hand. There remains the difficult problem of discriminating metaphors from the other four figures enumerated above. The difficulty lies especially in the fact that these figures are so often combined with metaphors. The hyperbolic word in *I have oceans of time*, is also metaphorical. I shall follow what I believe is the usual practice in classing such instances as hyperboles, noting that they are at the same time metaphorical. The first step is to set aside, for the moment, euphemism, which is intended to tone down, while the other figures are intended to enhance (11.15); and irony, which has peculiar properties of its own (see 11.8 and 11.9).

It was pointed out above that the enhancement causing a figure of speech might take different forms, and I suggest that we may determine the delimitation of the figures on this basis. We might say that a metaphor expresses an enhancement taking the form of a fusion of two disparate notions, referring to referents not essentially identical; a hyperbole expresses an enhancement taking the form of an enlargement or multiplication; and a litotes expresses an enhancement taking the form of a reduction or diminution, that is to say, a contrast of a special type.

We can then define a metaphor as a figure of speech in which (1) the enhancement is the result of a fusion of two disparate notions, *i. e.*, there is no essential identity between the two referents involved; and (2) the relation between the two referents is not expressed.

With regard to the four other figures, euphemism is, as stated, intended to tone down, not to enhance, while irony involves no immediate sense-change. These two figures have therefore to be discussed separately.

In the two remaining figures, hyperbole and litotes, a sense-change (a transfer) occurs only if the figure is at the same time metaphorical, and the shift is due to the metaphor, not to the hyperbole or the litotes. I have therefore not considered it necessary for my purposes to distinguish in the following lists of instances, metaphors that are also hyperboles or litotes, from those that are not.

This different treatment of the figures may seem inconsistent, and is perhaps so from an outward point of view, but it seems to me to be expedient in the extant circumstances, considering the scantiness of really reliable material. And I submit that the theoretical investigation of the figures of speech has not arrived at such definite results that we are able to state with confidence what is theoretically consistent and what is not. (Cf. Sterzinger's statement on the psychological correlate of the figures, quoted 11.51). I therefore consider myself at liberty to arrange the material with regard to its semantic properties, as indicated above. These are, after all, my chief objective.

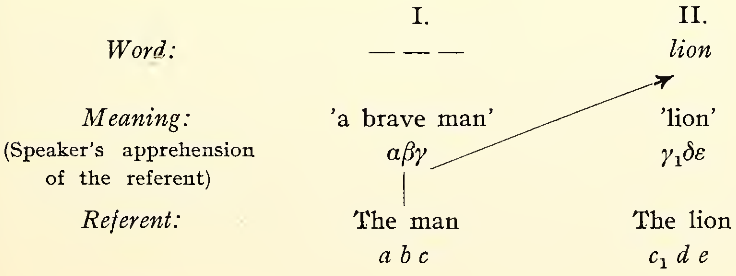
In accordance with these principles I now proceed to a theoretical discussion of metaphors, hyperboles and litotes, followed by lists of instances, in which these three figures are not separated. The chapter is concluded by paragraphs on irony and euphemism.

11.5. Metaphor (incl. Hyperbole and Litotes). Theoretical Discussion.

11.51. *The Psychic Process. The Speaker.* Some writers on metaphors have unaccountably neglected the productive aspect, and concentrated on the analysis of the *hearer's* mental processes. It is evident, however, that the genesis of a metaphor lies entirely with the speaker. It is the speaker who perceives the association on which the metaphor is based and formulates its peculiar linguistic expression. The characteristics of metaphors must therefore be sought in the speaker's mental processes and in the linguistic form in which he gives them expression. The hearer's part is to adapt himself to the speaker's mood and to comprehend the unusual symbol.

I shall take the simple instance of the word *lion* being used to denote a brave man. We have to imagine this to happen for the first time — it is the coining of metaphors that is being discussed, not the repetition of habitual metaphorical expressions. The speaker will perceive a point of similarity between his referent (a brave man) and a lion: the quality of courage. He does not make a comparison, he simply employs the word *lion* to denote the brave man. It is evident that such a procedure would be impossible if it did not rest on a traditional practice. We are accustomed to this method of using words, and we comprehend it even if the point of similarity should be somewhat vague or far-fetched.

The matter may be illustrated by a diagram.



In Referent I, the man, only three main characteristics (*Merkmale*) are designated, in order not to complicate matters unnecessarily. Of these c is assumed to be the quality of courage. In the lion (Referent II) there are also three characteristics, of which courage is one, but since it appears in another aspect in a lion, I have given it the symbol c_1. In a corresponding manner, the meanings, that is to say, the subjective apprehension of the referents, are given each three main elements, of which γ and γ_1, respectively, correspond to the qualities of courage in man and beast.

For the speaker, the mental process starts from Referent I, the man. The speaker is talking of one of his main characteristics, in the extant circumstances, the quality of courage, and desires to denote this in some manner more striking than the use of an adjective of suitable meaning. The quality c, apprehended as γ, occurs also in the speaker's apprehension of a lion, as γ_1, and according to the psychological law that not only identical, but also similar elements may serve as stimuli for the reproduction of a total, γ is also capable of evoking the complex II, word and meaning, the latter = the apprehension of the referent. But the speaker's purpose for the moment is to find a word. The whole complex is therefore not actualized, but only the part of it that satisfies the task (*die Aufgabe*) and falls in with the determining tendencies; that is primarily the word, *lion*. According to the law that if an element is associated with a complex entity, it is associated with each element of the complex, it is possible for the idea of courage, γ, to call up directly the word *lion*, without necessarily evoking the whole complex II (cf. 4.24). Irrelevant elements of meaning — as the yellow colour, the nocturnal habits, the tail, etc. — are inhibited; they would be merely disturbing (cf. 11.54). The process is indicated by the arrow in the diagram.

I refer to the following argumentation in Ebbinghaus-Bühler (680): "Auch wenn gegenwärtige Empfindungen oder Vorstellungen mit früher dagewesenen nicht identisch, sondern ihnen nur *ähnlich* sind, rufen sie Vorstellungen der mit jenem Ähnlichen früher verbunden gewesenen Gebilde hervor. Ist z. B. ursprünglich eine Gruppe von Gebilden $a\ b\ c\ d\ e$ erlebt worden, so wird die Wiederkehr der Glieder a und b die den übrigen Gliedern entsprechenden Vorstellungen $\gamma \delta \varepsilon$ wachrufen; aber dies wird auch schon geschehen, wenn nicht $a\ b$, sondern die ihnen nur ähnlichen Eindrücke a_1 b_1 jetzt in der Seele durch die ihnen entsprechenden Ursachen erzeugt werden. Um so leichter und sicherer begreiflicherweise, je grösser, und um so schwerer und seltener, je geringer die zwischen *a b* und a_1 b_1 bestehende Ähnlichkeit ist".

In criticizing the traditional theory of association by similarity, Ebbinghaus-Bühler argue as follows, which has a direct application to the matter in hand. The process does not go from the impressions *a b* to the similar impressions a_1 b_1. But if *a b* have previously been connected with *c d*, the process goes on to *c d*, not only from *a b*, which have previously been connected with *c d*, but also directly from a_1 b_1 to *c d*, or rather to the thought of these impressions, $\gamma\delta$. If a child cries *papa* to a stranger, it is unlikely that the stranger first evokes in the child the idea of the father, and so the word. Rather the total impression, which is similar to that of the father, leads on directly to the word. There is nowhere any reason for the impression *a b* to transform itself into the similar impression a_1 b_1. But according to our general notions of associative processes it is practically a necessary assumption that not only *a b* but also a_1 b_1 should have the power directly to call up *c d* (l. c. 687).

Mental structures may resemble each other in such a manner that they have a smaller or greater number of isolable common elements, as may be represented by the symbols *a b c d* and *c d m n*. If the group *a b c d* is given, the elements *c d* contained in it may in favourable circumstances evoke the ideas $\mu\,\nu$ We have then in immediate succession the two experiences *a b c d* and *c d* $\mu\,\nu$, but again not owing to any special power of reproduction inherent in similarity, but owing to the effect of the general law of association in these particular circumstances. This is the case with all analysable similarities (l. c. 688).

The theory favoured by some writers (see for instance the quotation from Marty, 11.13 note) that the metaphor is based on a comparison, would involve, applied to my diagram, the process running on from γ to γ_1, and thence to the word *lion*. Such a process is what one would expect as the psychic correlate of a simile, "a formal and avowed comparison of one thing to another" (Bain, quoted 11.42 note), in which two similar elements in two referents are simultaneously in mind. In view of the differences between metaphors and similes, not only in the verbal formulation, it does not seem probable that they should express the same manner of apprehending, even if their referents are identical. However, the matter is controversial, and in cases where speech is slow, and time is afforded to set the primary and secondary referents side by side for purposes of comparison, possibly the same verbal form may cover a different process. Individual variations are also probable, but on the whole it seems to me that the explanation given here is likely to be valid for the majority of metaphors in speech.¹)

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¹) Sterzinger's analysis of a typical case seems to me to corroborate this view. He states that he likes to employ, personally, metaphorical expressions, but when

In so far as the intentional selection of words is for the purpose of relieving the speaker's feelings or of making a special impression on the listener, the speaker's and the listener's relations to the metaphor must be different. The speaker, as it were, sees the metaphor from within, from the creator's point of view, though we must not suppose that this is always, or even in most cases, a fully conscious attitude on his part.

In so far as the metaphor presents the referent in a certain light, or, as Stählin expresses it, fuses the apprehension of the actual referent with elements from another sphere, the speaker's and the listener's relations to it are much the same. For the speaker, the notion must logically be primary, the word secondary, but it is not known at present if this sequence is always a fact.

11.52. *The Psychic Process. The Hearer.* The comprehension of a metaphor is not essentially different from the comprehension of any other phrase, as analysed in ch. 6. It is always the context that guides the hearer to a rapid and correct actualization of that particular element of meaning which is intended by the speaker.

Returning to our instance (*lion*) we find that, theoretically, the process for the hearer begins with the word. In reality, however, the hearer knows, in all normal cases, what the topic of conversation is, and in a large majority of cases he will also be acquainted with the speaker's opinion of the third person who is the topic. The word *lion* is therefore immediately referred to the referent 'brave man' (Referent I, see the diagram), to which, however, the word is not unconditionally applicable. In this case, as in most other cases, it is one element of

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he is writing for a newspaper he changes afterwards to the easier form of a simile. He has developed the habit of first formulating his thoughts in the form that is congenial to him, and then of making a kind of translation into the speech of his less scholarly readers, with a more frequent use of comparisons, similes, "it is as if", and other stylistic tricks, instead of the concentrated metaphorical expression. On the reason for the different effect of these forms he says: "Im Vergleich und im Gleichnis sind Bild und Sache weit und weiter getrennt, man hat Zeit für die psychischen Operationen und braucht sie daher auch nicht in dieser Intensität vorzunehmen; bei der Metapher stehen sie räumlich und zeitlich enge beisammen: die geistige Arbeit muss rascher und intensiver erfolgen: Tacitus und Horaz sind eben schwerer zu lesen als Livius und Ovid". (Arch. 37, 384—385). But if similes and metaphors thus call up different processes in the hearer's mind, is it probable that the process in the speaker's mind is identical? (Cf. the quotation from Stählin, 11.54).

the many in the meaning of *lion* that is intended by the speaker. Only this element is capable of combining with the hearer's apprehension of Referent I (the man). Or, turning the matter round: *lion* is a motive of reproduction for all the elements of its own meaning; the referent 'man' can be a motive of reproduction only for the elements applicable to it. The two motives converge on that element ('courage'), giving it a predominant position, and evoking it to the exclusion of the other, more or less irrelevant, elements. (Cf. 6.32 with quotations from Poppelreuter, Selz, and others). We have here a specialization of meaning. The remaining elements of meaning of *lion*, perhaps especially the emotive elements or an awareness of the sphere to which the primary referent belongs, are evoked more or less, forming a background or fringe to the actual referent (cf. on this point 11.54).

The degree of "preparation" necessary for the comprehension of a metaphor varies with the degree of similarity or intimacy of relation between primary and secondary meaning. Even if it is of the most elusive kind, the hearer will make a correct reference, he will understand it correctly, *en fonction du schéma d'ensemble*, but a correspondingly definite preparation is then required. Thus the metaphors in the first lines of Keats' *Ode on a Grecian Urn* would be incomprehensible if the heading had not previously informed the reader what referent the phrases were intended to designate.

It must again be emphasized that here, as in all ordinary speech, the basis for the comprehension of each single word is not that word alone, but also a mass of context: concomitant circumstances, situation, knowledge of the topic, of the speaker's habits and opinions, etc. (cf. 11.59).

A difference between a metaphor and a simile or a comparison is the fact that in the former case the nature of the relation between primary and actual meaning is not expressed (cf. above 11.42 and 11.51). The hearer has to deduce for himself from the context that it is a similarity between the man and the lion that is the common element in the instance just quoted. The hearer thus has to create for himself the relation between the two referents, and has to take a more active part in the process of comprehension than in the case of a simile or a comparison.

11.53. *The Point of Similarity.* An important factor in metaphors based on similarity is the point of similarity, the common element, often called the tertium comparationis. Earlier writers have not much to say on it: it must be present to the mind, it must be easily found, clear, striking, and adequate.

Sterzinger has investigated the problem, and his reports show that in most cases a mediating item is present to the speaker's mind. This item, the point of similarity, may be constituted by imagery or feelings, but is mostly constituted by a configuration (*Gestalt*). The configuration may be based on elements of the same sensory quality (*Sinnesgebiet*), or on elements of different sensory qualities. Sterzinger suggests that the purpose of a poetic figure might be a repeated production of the configuration, first in the referent, then in the illustrative figure, perhaps in order to make it more easily comprehensible to the listener. The speaker (the poet) would have to perceive the configuration in the referent, and then find it again in another referent.

Sterzinger further states (Arch. 37, 396 sqq.) that the aesthetic association, the fact that an element of one notion adduces another notion which contains a similar element, is subconscious (or unconscious), and that it does not often become subsequently conscious, or at least it does not pass the lowest stages of consciousness. This would explain why the statements of rhetoricians and aestheticians concerning the common element are so meagre. Sterzinger leaves it an open question whether this circumstance is conditioned by the unimportance of the element, or if it is a consequence of its psychological nature.

I think that the lack of obtrusiveness of the common element is explicable in the following way. The aim of the speaker employing a metaphor is two-fold: (1) to designate the referent; in this respect the metaphor is on a line with all other expressions used in ordinary speech; (2) to invest the referent with a certain colour, certain associations carried along with the word from its primary meaning and its sphere. The common element must be prominent enough to permit of the metaphor being applied without difficulty to the actual referent; being assisted, as previously explained, by context. Once this stage has been attained, the common element generally ceases to be of interest. The actual referent itself is present to the mind, the awareness of the primary referent is present in so far as it is necessary for the right comprehension of the metaphor; and for the full comprehension to develop the listener relies chiefly on the whole import of the word and of the two referents, not on any one element of meaning of the word. The hearer must himself educe the relations between actual and primary referent if they are to affect him.

The part played by feelings as common elements is emphasized by Müller-Freienfels (Einfluss 400 sqq.). Similarity of imaginal elements would be disturbing and ridiculous: *lips like cherries, eyes like almonds, a skin like milk and strawberries, her beauty hangs upon the cheek of night as a rich jewel in an Ethiop's ear* — in every case it is the feeling that is the decisive element, not cognitive similarities. The feeling is intensified and expands in fresh, strongly emotive words, in order to re-inforce and enhance the original emotion. The poetic figure exists to intensify emotion, not to supply the reader's imagination with more material (Müller-Freienfels refers to Ribot, Essay sur l'imagination créatrice, and to Betz, Vorstellung und Einstellung, Arch. f. d. g. Psych. 17, 20).

These problems would seem to require much further research.

11.54. *The Metaphorical Experience.* Stählin (Met. 25 sqq.) has investigated the nature of the metaphorical experience, and I shall summarize some of his statements, making use of my own terminology and the results of the preceding argumentation.

The metaphor aims at providing relief and expression for the speaker's feelings, and at impressing the hearer in a definite way. The metaphor carries along with it from its own sphere (the sphere of the primary referent) elements of its primary meaning. The strength and obtrusiveness of these elements depend on the circumstances, and on the degree to which they are applicable to the actual referent. The essential point is that we experience the actual meaning of the metaphorical expression, and of the context in which it is placed, and simultaneously also something of the primary meaning of the phrase or word. The fusion of the latter elements with the actual meaning and the actual context constitutes the metaphor. There is always a certain tension between the actual context and the primary meaning. The latter comes from an alien sphere — according to Stählin, cf. 11.42 — and in its whole import could not be applied to the actual referent: a man is not identical with a lion. But characteristics are evoked, relations and correlates occur to us, emotional tones make themselves felt, and we realize a certain *Sphärenbewusstsein:* all this we are constrained to apply to the actual referent, and to link up with the actual context, which thus becomes the bearer of these foreign characteristics, relations, and emotional tones. The blending of the two spheres, the application to the actual referent of characteristics not properly belonging to it, of emotional tones of an unusual kind, of relations of a startling and original nature — this constitutes the essence of a metaphor. "Es findet ein Austausch der Merkmale, eine Vereinigung der beiderseitigen Sphäre, eine Verschmelzung von Bild und Sache statt" (l. c. 28).

The metaphor expresses shades of thought and feeling which could not otherwise be formulated in speech, or not so concisely and precisely formulated. The value of a metaphor lies in the adding of new attributes to a referent, its placing in a net of new complex relations, through which it is brought into a new light, receives peculiar emotional values and is comprehended more vividly and completely than before (l. c. 47 sqq.). With regard to images, Stählin thinks that they serve to attract the attention to the primary meaning and thus prevent the swift comprehension of the actual meaning, as they may stress certain elements of the primary meaning which must be abstracted from in order to allow the actual meaning to establish itself (l. c. 33 sqq.; cf. 4.141).

The metaphor is not an abbreviated simile, for it does not compare; in calling a camel *the ship of the desert* we do not compare a camel to a ship — the common element is not sought (cf. 11.53, and Elster II 119). Metaphor is thus a sort of verbal shorthand, expressing thoughts which otherwise could only be expressed through a long and cumbersome phrase. It gives the emotion directly, instead of talking of it; it does not describe, but makes us experience. "Die Metapher is eine schöne Kühnheit, leicht verständlich dem, der Geist hat" (Vischer, Das Symbol).

A good metaphor is one which without effort moulds the apprehension of the referent in a certain way, and thereby enriches it. (1) It must be effortless. (2) It must enrich the apprehension of the referent. (3) The fusion of referent and illustration (*Bild*) presupposes a certain affinity of their respective spheres. The nature of this affinity has not been investigated. (4) The metaphor must be such that the various attributes of the referent can coalesce into a unit in our mind.[1])

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[1]) "Like all similitudes, Metaphors may (1) aid the Understanding, (2) intensify or work up a Feeling or Emotion, (3) give an agreeable Surprise. For the second and the third effects, and also as a distinct aim, they are required to be in full Harmony with the subject" (Bain I 159. See also K. O. Erdmann 172 with a quot. from Schiller, 210, 214 sqq.).

The metaphor may fade, so that it loses its metaphorical force, no longer attracting associations from its original sphere. It no longer creates a tension, but becomes the ordinary appellation, the plain statement, for a referent: *the head of a band of robbers* (see 14.52, adequation). On the other hand the metaphorical elements of a phrase, its primary meaning, may occupy our minds to the exclusion of the actual referent, or at least so as to make it insufficiently comprehended. We do not realize that the expression is intended to be understood figuratively. The metaphor misses fire, and is understood literally. Between these two extremes we have the metaphor proper (Stählin, Met. 32).

11.55. *The Relation between the Referents.* Most writers seem to take it for granted that the relation between the primary and the actual meaning in a metaphor is always one of similarity, but when the term is defined as above, we get a comparatively large number of instances founded on other relations: *a touch of shame upon her cheek,* is a case in point (Bain I 167). The notion of shame is not similar to the notion of blushing, but correlated to it.

It might be objected that the basis of a metaphor like this is a similar feeling-tone (cf. the quotation from Müller-Freienfels 11.53), and it is often not easy to decide how an individual instance should be judged. However, I need only refer to instances given in the lists below (11.7). Since there are unintentional changes of two kinds, founded either upon similarity or upon other relations (regular transfers, and permutations, respectively), it seems reasonable to assume that just as we have an intentional type corresponding to regular transfers, so there must be one corresponding to permutations; a shift of this kind must also be capable of being effected intentionally in connection with emotional factors.

It seems probable that metaphors founded on similarity are more frequent than the other kind. In a speaking community the opinion on what is similar and what is not, must be comparatively uniform. A similarity is therefore easily perceived, even if the metaphorical expression is taken from an alien sphere, or involves only unimportant characteristics of the actual referent. But the apprehension of what is correlated in other ways, among disparate notions, must vary considerably from speaker to speaker, and from instance to instance, depending on personal experience and attitude, and on the momentary circumstances. We cannot, except among intimates who know one another's ways of thinking, go very far in the chain of correlates without finding so great a variety that no two persons would be likely to hit upon the same, and the risk for misunderstandings would grow in the same degree. Among intimate friends the case is different: we know that in every little group of speakers there are allusions that are incomprehensible to outsiders "not in the know". It should not be forgotten that metaphors founded on similarity may be so far-fetched that they are incomprehensible without a previous knowledge of their referent. Keats' lines in the *Ode on a Grecian Urn*, already quoted, are an instance. Many riddles are founded on elusive similarities.

11.56. *Hyperbole.* I have defined hyperbole as a figure of speech in which the enhancement (see 11.15 and 11.42) takes the form of an exaggeration, an enlargement, a multiplication, or an intensification of the referents denoted; in other words, in the use of stronger words than the referent actually merits. Hyperbole is often combined with metaphor, so that a word is both hyperbolical and metaphorical (*I have oceans of time*). "Hyperbole is an effect gained by magnifying things beyond their natural bounds. . . When an object pleases greatly, in consequence of certain qualities, we are willing to purchase an addition to the pleasure, by raising or intensifying the verbal description of these qualities. This is Hyperbole, or exaggeration used for effect in style. The essential conditions are — (1) that the pleasure be marked and decided, (2) that the departure from truth does not shock our sense of the truthful, (3) that the language used be able to sustain the emotional interest" (Bain I 225).

Bain further states that "our pleasure in overstating whatever concerns our feeling is so great that our ordinary language contains hundreds of hyperboles, which we employ without being tired of the repetition: *not knowing the right hand from the left, splitting hairs, cheese-parings, over head and ears, driving a coach and six through an Act of Parliament, a sea of faces, speaking volumes*" (l. c. 228, cf. Elster II 194, Nyrop IV 108 sqq., Carnoy 357 sqq.). Most of Bain's instances are hyperbolic phrases rather than hyperbolic words, and the sense-change is therefore mostly occasional only.

But there are a great number of instances where the enhancement lies in the use of some single word, expressing a great intensity or a high degree, an enlargement, etc., which may correspond to the momentary state of mind or purposes of the speaker, but which have no objective foundation in the actual characteristics of the referents and in their emotional value to the speaker.

Among these words we may distinguish two types. In the first type, the enhancement follows, so to speak, the same line of thought, only pushing higher up along it: the primary meaning of the hyperbolic word is not disparate from the actual referent. Instances are: *an endless day*, for *a long day, a thousand apologies*, for *many apologies*. The same effect may be attained by adding a qualifier like *very, much, highly, indeed*, or other words of the type described in 14.531, in which the cognitive import has more or less completely faded, so that the word only serves to re-inforce the meaning of whatever other words it is used to qualify.

I do not think that this kind of hyperbole involves an immediate sense-change of the type discussed in the present chapter. The word must be assumed to render the speaker's intentions, or momentary state of mind; it is true that the hearer may take it at a discount, but that does not constitute a permanent transfer, even in the case of repetition. On the other hand, if the use becomes habitual, emotional adequation, as described in 14.532, may set in, the hyperbolic word losing more or less of its force; but that is another type of change.

The second type of hyperbolic words is constituted by those in which the primary and actual meaning are disparate; that is to say, by words that are both hyperbolic and metaphorical. To this type belongs the large number of intensifiers that have not yet been completely adequated, but retain more or less of their primary meaning, and which, for that reason, give more force and vividness to speech, and are therefore resorted to when greater expressiveness or effectiveness are desired: *lovely, delightful, splendid, glorious, superb, grand, wonderful, gorgeous, heavenly, sublime, magnificent, perfect, divine, tremendous, entrancing, stupendous, enchanting*, or in colloquial speech words of more or less "slangy" character: *bang-up, rattling, tip-top*, and so on. If much used, such terms succumb to adequation, and pass over into the former type (cf. Greenough & Kittredge 312 sqq.; French instances in Carnoy 357 sqq., Bally II 210 sqq.). In this type, there is a sense-change connected with the use of the word as applied to a disparate referent, that is to say, with the metaphorical use.

As stated above, I do not distinguish hyperbolical from non-hyperbolical metaphors. Thus, in the following lists of words, many are hyperbolical, as for instance, *a forest of feathers* (11. 611 a), *beak* for *nose* (l. c.), *corn-stalk* for a lean person (11. 611 b), *Venus* for a beautiful woman (11. 611 c), *Paradise* for a pleasant place, and *Tophet* or *Gehenna* for an unplesant one (11. 612 g), *mountains of infamy* (11. 612 a), *iceberg* for an unemotional person (11. 612 b), *ancient damnation* (11. 612 c), *pig, bear,* and others (11. 612 d), *carrion* for a base or worthless person (11. 613 c), and many others. See especially 11. 613 for metaphors based on similarity of emotive effect.

11.57. *Litotes.* (1) The litotes, sometimes called meiosis, is described by Bain (I 232) as being the negation of the opposite to that which is meant, or, as Fowler expresses it (MEU), that particular kind of rhetorical understatement in which for the positive notion required is substituted its opposite with a negative: *a citizen of no mean city, er freut sich nicht wenig, je ne vous blâme pas.* The last instance is from Nyrop (IV 268) who defines litotes as a rhetorical figure ''par laquelle on atténue l'expression de sa pensée de manière à laisser entendre le plus en disant le moins'', and which mostly takes the form of negation of the opposite of that which is really meant. ''In 1 Cor. xi. 7.22, *I praise you not* has the effect of an emphatic *I blame; not a few* means *a great number, not bad, eh?* after an anecdote, means *excellent*'' (MEU, s. v.).

When Fowler calls such expressions understatements, I think he is not quite right. *Not bad,* taken literally, leaves a large latitude, from *indifferent* to *excellent,* and may mean either, depending on the intonation used and the circumstances.¹) As this figure does not give rise to any sense-change, it need not detain us further.

(2) The term litotes is also used for an understatement ''not to deceive but to enhance the impression on the hearer . . . taking many

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¹) Fowler MEU 383 speaks of this figure as a ''faded or jaded elegance . . . jaded by general over-use; faded by the blight of worn-out humour, with its *not a hundred miles from, not unconnected with,* and other once fresh young phrases. But the very popularity of the idiom in English is proof enough that there is something in it congenial to the English temperament, and it is pleasant to believe that it owes its success with us to a stubborn national dislike of putting things too strongly. It is clear too that there are contexts to which *e. g. not inconsiderable* is more suitable than *considerable;* by using it we seem to anticipate and put aside, instead of not foreseeing or ignoring, the possible suggestion that so-and-so is inconsiderable''.

forms and contrasted with hyperbole. Very common in colloquial and slang English. The emphatic *rather* (Did you ever hear Caruso? Rather), the retort *I'll see you further first* (*i. e.*, in hell)[1]), and the strangely inverted hyperbole *didn't half swear* (swore horribly), are familiar instances" (Fowler, MEU 610). German instances are *ein trinkbarer Wein, ein leidlicher Verdienst.* (Wellander, Studien I 192).

Here too, the literal meaning *may* be intended, and the listener will have to depend on context, and signals, to interpret the speech correctly. The typical characteristic of this type is the use of a modifying attribute, denoting literally a lower degree, but intended to convey the notion of a rather high degree of whatever is denoted by the qualified word. The adjectives in *-ish* belong here: *that will be a longish job*, which may be stronger than *that will be a long job.* Similarly, *I kind of got that habit myself*, may imply that the speaker had the habit very badly (Bøgholm 123). Cf. Swedish *ganska långt*, with emphatic stress on the qualifier. — This type leads to no permanent sense-change.

(3) A third type of litotes consists in substituting a word denoting an inferior size, quality, etc. of whatever is being mentioned, as *the little village*, for *London*, *the herring-pond* for *the Atlantic*, *my diggings*, for, possibly, my quite comfortable apartments, and *my old cart*, for my brand-new Rolls-Royce. The reason for this is sometimes a humorous intention, sometimes a desire to avoid even the semblance of bragging of one's own belongings (cf. the quotation from MEU above). It might be called an inversion of the hyperbole. In this type the litotes is metaphorical, and there is consequently a sense-change involved, which may become permanent. The instances do not seem to be very numerous: *herring-pond*, and *diggings*, or *den*, are, I think, instances in point.

The principle underlying the effect of litotes, as that of irony, has been formulated by Bain as follows: "It is a first principle of the human mind, that we are affected only by change of impression. Among the many consequences of this law is the efficacy of contrast in verbal composition . . . It is a prevailing habit of language to express only one term of these couples (*i. e.*, of correlated and contrasting notions) and to leave the other to be implied or understood" (Bain I 196). Cf. the quotation from Shand (11.41) on the effect of surprise. The contrast involved in a litotes is that between the moderate emotional intensity of the actual expression, taking it literally, and the enhanced real meaning of that expression.

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[1]) This is in my opinion a typical euphemism.

For the speaker, we have to assume incentives similar to those involved in metaphors: the desire for relief to one's feelings, through an emotionally coloured expression, and the striving for effect.

With regard to the process of comprehension, the hearer has to educe, with the help of context, what the speaker really means. As in metaphorical speech, the hearer knows enough about the topic and about the speaker's attitude to the topic to be able to conclude that when somebody calls London *the little village*, or the Atlantic Ocean, *the herring-pond*, or his fine car, *my old cart* — that in these cases the speaker is greatly understating his real opinion. The contrast between what is actually said, and reality, is generally humorously intended, and is consequently aiming at a stylistic effect.

As stated, it is apparently only the third type of litotes that leads to a real sense-change. The non-metaphorical litotes might involve a secondary sense-change through adequation (14.54).

11.58. *The Classification of Metaphors.* According to my plan, I confine myself in the following lists to metaphorical words, leaving out of account metaphorical phrases.

With regard to the metaphorical words, I have already stated in 11.31 that I propose to distinguish metaphors founded on similarity from those founded on other relations. Secondly, I separate the various parts of speech. The nouns are, as usual, best represented.

Among metaphors based on similarity we may, for the nouns, make distinctions according to the nature of the common element. The similarity may refer to (1) the appearance, (2) the qualities, functions, activities, or (3) the perceptual or emotive effects, of the referents. With a larger and more diversified material, it might have been possible to make further distinctions along these lines.

Among metaphors founded on other relations I give only a few representative groups, not aiming at completeness.¹)

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¹) Stählin (Met. 72 sqq.) proposes a very elaborate system for classifying metaphors, according to the sphere of experience to which the primary referent belongs. I am somewhat doubtful about the usefulness of this principle for semantic purposes.

11.59. *A Note on Marty's Theory of Metaphor.*

Since the late A. Marty's theory of metaphor has lately been taken up by Funke and Wellander, it is necessary to say some words in criticism of it. It is closely involved in Marty's theory of *figürliche innere Sprachform*, a concept to which he attributes a great importance. Reviewers seem to regard it with some scepticism, tempered with respect for the formidable volume of Marty's writings on the subject, but as far as I know it has never been thoroughly criticized. I shall only offer some remarks, in so far as the matter is relevant to my own discussions. In summarizing Marty's views I follow Funke's book on *Innere Sprachform*, which makes use mostly of Marty's own formulations.

Funke explains Marty's theory in the following way. "*Löwe* bedeutet das bekannte Tier; nun kann dieses Wort auch gebraucht werden, um einen Krieger zu bezeichnen, der sich als heldenhafter Kämpfer hervortut. Wenn ich von jemandem in diesem Sinn als von einem Löwen spreche, so wird zunächst durch den Namen die Vorstellung des kühnen Raubtieres erweckt, durch diese Vermittlung aber erst die eigentliche Bedeutung, d. h. das, was eigentlich gemeint ist, nämlich die Vorstellung eines Mannes von bestimmten Qualitäten. Es werden also in diesem Zusammenhang mit dem Aussprechen des Namens *Löwe* zwei Vorstellungen wachgerufen: die zuerst ins Bewusstsein tretende dient aber nur als Band der Assoziation für die eigentlich zu erweckende Bedeutung" (Funke, Sprachform 26). The essence of the inner form is thus the occurrence of certain "Vorstellungen" which are called up by the word, but do not themselves constitute the meaning of the words; they only serve to evoke this meaning, according to the laws of association (Funke, Sprachform 27). In many cases the speaker and the hearer do not consciously realize these elements, although they would be able to do so. The inner form has faded, owing to lack of attention to it. Habit ensures a direct and firm association between sound and meaning. But in other cases these elements of inner form are still actualized. The inner form "ist nicht das Bezeichnete, sondern selbst ein Zeichen, so gut wie der Laut" (l. c.).

This analysis should be compared to Marty's definition of meaning: "dasjenige psychische Phänomen, welches der sprachliche Ausdruck im Hörer wachzurufen bestimmt ist" (Funke, l. c. 20—21). It is clear that there is a contradiction between this definition and the assertion that inner form is not an element of meaning. The argument that inner form is not *intended* (bestimmt) to be evoked, but only the meaning is intended, falls to the ground, because if the inner form is not evoked at all, *i. e.*, if no thought of the lion is evoked, then the expression is no longer a metaphor, but an ordinary unmetaphorical appellation of the referent.

With regard to Marty's analysis of the comprehension of a metaphor, there are several objections. The first objection regards the tacit assumption that the metaphor (*Löwe*) is interpreted on the basis of the metaphorical word alone, as if it were isolated. The analysis of comprehension in ch. 6, and the further remarks made above (11.52) will have shown that this is a serious mistake. Words are interpreted *en fonction du schéma d'ensemble*, and all relevant items of context are brought to bear in the process. Marty was, evidently, not in touch with the experimental psychology of his own time.

My second objection refers to the words, "so wird zunächst durch den Namen die Vorstellung des *kühnen*[1]) Raubtieres erweckt" — a phrase that begs the question. The point that requires explanation is just the fact that *Löwe* evokes the element of 'courage', among the many other elements of meaning that might have been evoked, and for all of which the name is equally a sufficient stimulus. Why does it not evoke instead the thought of four legs, or yellowish brown colour, or a tail, or nocturnal habits, or of a mane, or of great strength, or of canine teeth, or of roaring, or of the last lion I saw, which was in the Zoo? In Marty's analysis we find nothing on this essential point (cf. the explanation above, 11.52). If, as is mostly the case, the hearer knows what the topic is, the détour via *das kühne Raubtier* is unnecessary. There are many instances in which it is absolutely necessary for the hearer to know to what referent the metaphor is applied, because otherwise he would not understand it. I have already quoted in this respect Keats' lines in the *Ode on a Grecian Urn.*

My third objection refers to the whole theory of mediation. We know from experimental investigations (cf. 6.22 and 6.36) that comprehension may be mediated by mental content of some kind. But the evidence does not show that metaphors and mediated comprehension are inseparable concomitants, or that there is any correlation at all between them, causal or otherwise. Such a correlation is the first thing that must be proved, if Marty's theory is to be taken seriously. (See also 14.15 on the theory of mechanization).

A fourth serious objection may be made against Marty's method of trying to find the explanation of metaphors in the mental processes of the *hearer.* It is the speaker that formulates the metaphor, and its genesis can be explained only if we investigate the speaker's mind (11.51). The hearer has to adapt himself to the speaker's mood; there is nothing extraordinary in his methods for comprehending what is being said. For the speaker, the inner form cannot be a mediating element in the way Marty says.

I conclude, then, that Marty's analysis of the comprehension of a metaphor does not agree with the findings of experimental psychology, as summarized in ch. 6. It is a mistake to assume that each word is interpreted as if it were isolated, neglecting the important part played by context. It is a mistake to suppose that mediated comprehension and metaphorical expressions are inseparably connected; at least no connection has as yet been proved. And it is a mistake to neglect the mental processes of the speaker, which are decisive for the psychic structure of the metaphor. The theory of inner form seems to me to be an unnecessary elaboration which is not corroborated by the results of psychological investigations.

11.6. Metaphors based on Similarity.

11.61. *Nouns.*

11.611. *Similarity of Appearance.* This type is liable to produce numerous doubtful cases, merging into the non-metaphorical intentional transfers, and into regular transfers. The group is very large. The words are concrete in meaning.

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[1]) My italics.

(*a*) *Object's Name for Object. Close at hand the building is an entertaining salad of styles* (1893). — *I haue maintain'd that Salamander* (= *fiery-red face*) *of yours with fire, any time this two and thirtie yeeres* (1596). — *An old turnip of a watch* (1840). — *The bay is now curling and writhing in white horses under a smoking south-wester* (1849. Cf. F. *moutons* or *chevaux blancs.* Wundt II 606. — *A Forrest of Feathers* (1602). — *The mounteins of bodyes were a-boute hem so grete that noon myght come to hem but launchinge* (1450).

Plants and flowers are often named on the basis of some observed resemblance; Weekley (Words 29) enumerates *crowfoot, crane's bill, larkspur, monkshood, snapdragon,* corresponding to G. *Hahnenfuss, Storchschnabel, Rittersporn, Eisenhut, Löwenmaul.* Or are these intentional transfers? Parts of the human body are not seldom denoted by words originally signifying material objects or more or less corresponding parts of an animal's body, the intention in both cases being humorous, often also depreciative: *beak, bill, proboscis,* or *bow-sprit* for nose, *fin, flipper, paw,* for hand, *paunch, crop, craw, maw, gizzard, bread-basket* for stomach or belly.

(*b*). *Object for Person.* A tall and lean person may be called *a beanpole, beanstick, cornstalk, lamp-post,* or *rake.* The secondary meanings of *hulk, mite, clod, clown,* are too well known to require explanation. A *poker* is a person with stiff rigid manner, a *stick* also 'a stupid or incompetent person'. Further instances, see A. Smith.¹) The effect is generally depreciative.

(*c*). *Proper Names in Appellative Use.* Proper names of persons are used as appellatives with regard to exterior appearance. We speak of a *Venus, Helen, Adonis, Apollo, Goliath, Tom Thumb, Polyphemus,* and so on. (Further instances in E. L. Fischer, Aronstein, Reinius, Östberg, A. Peterson and Evald Müller). I may add that appellative personal names may be used of animals: "*Adjutant,* the nickname of

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¹) From my point of view there is no purpose in distinguishing, as Smith does, the so-called synecdoche from the metaphors. When a person with fat or bloated cheeks is called *chops,* or a lean person *skeleton,* a corpulent or gluttonous person, *guts,* an informer or spy, *a nose,* etc., the circumstance that the words primarily denote parts of the human body makes no difference in principle. The last two instances belong to metaphors founded on similarity of activity or function, 11.612.

the solemn Indian Stork, is clearly due to Mr. Atkins, and the *secretary* bird is so named because some of his head feathers suggest a quill behind an ear" (Weekley, Words 34).

11.612. *Similarity of Quality, Activity, or Function.* With a larger collection of instances this group would perhaps split up into several, although there would always be numerous doubtful cases. It is sometimes difficult to distinguish from the preceding group.

(*a*) *Object's name for Other Object. Concrete for Concrete. A mazey laberynth of small veines and arteries* (1615) — *During this autumnal season the city is a desert* (1862). — *Vsing alwaise soch discrete moderation, as the scholehouse should be counted a sanctuarie against feare* (1568).

Concrete for Abstract. This group comprises an enormous number of figurative abstract uses of concrete words, mostly in texts of a poetical or otherwise emotional character. The great frequency of the figure is due among other things to its being a convenient way of expressing what could not otherwise be so effectively put. A concrete mould, so to speak, is pressed on the abstract notion, thereby increasing its vividness and the force of its appeal to the listener.

How now Thersites? what lost in the Labyrinth of thy furie? (1606). — *He would sleepe securely vpon the lap of God's protection* (1617. Cf. *fortune's lap, the lap of luxury*) — *The savage creed that wears the scalp of Shelley at its belt* (1870).

A transfer of this kind is especially easy with regard to words denoting or implying some concrete quality which is, metaphorically, predicated of abstract entities. Such words are *height, breadth, depth, colour, balance, support, root, stem, fruit,* and many others. See the lists in Bain I 164. *The favour of a king can remove mountains of infamy* (1771). — *A whole forest of verbal arguments.* — *Let no proofe be brought for it, and neuer so much against it, yet stickes the scarre of suspition still* (1583) — *The Prosecution would leave a Scar upon his good Name* (1710). — *Waters of cursyng . . . muste be cast out of ȝoure pytt with a scope of penaunce* (1440). — *The fende wil pluk at the balance To wey vs doun* (1384). — *Beir equal ballanis baith to riche and puir* (1573). — *The other characters are all sawdust and wires* (1908). — *Our hereditary nobility have safety-valves in their rank* (1818). — *The barke þat defendeth the tree from stormes and tempestes is hope. And the sap that gyueth lyfe to both, is charite* (1526). — *Now opyn yowur sachell with Laten wordis, Ande sey me þis in clerycall manere* (1450). — *That which we call Rail-*

lery, in This Sense is the very Sawce of Civil Entertainment (1692). — *Fooles, that can not search the leakes of his defectes* (1602) — *He . . . suffreth vs as for oure exercise With sharpe scourges of Aduersitee fful ofte to be bete in sondry wise* (1386). — *Þe lombe her lantyrne withouten drede* (1360). — *Yboundyn in the blakke barke of care* (1374). — *Her synd eac þa cnihtas . . . mid ðam ic becom to cristes scole* (1000).

Abstract for Concrete. "The abstract name isolates the point of importance, and so gives it emphasis. 'Youth' means the young, considered as young" (Bain I 184). The following instances are from Bain: *Let not Ambition mock their useful toil* (Gray). — *Fair star of the evening, splendour of the west.* — *Fold A rose-leaf round thy finger's taperness* (Keats).

Abstract for Abstract. He had silenced the discords of passion in his own breast (1878). — *Coveting no other companion but sorowe, nor no other harmonie but repentance* (1588). These two instances might perhaps be classed under 11.613. — *Only those who have worked out their own photographic salvation can realize the difficulties to be overcome* (1891.) — *Þis psalme contens þe sacrament of all chosen men* (1340).

"Knowledge is *light*, passion is *fire*, depression of spirits *gloom*. . . So we speak of a *ray* of hope, a *shade* of doubt, a *flight* of fancy, a *flash* of wit, *ebullitions* of anger" (Bain I 163).

(*b*) *Object for Person.* The name of an object is used for a person mostly in a depreciative sense. The quality denoted or implied is good or indifferent in the object, but is, or is considered to be, depreciative or insulting when ascribed to a human being, for whom another standard is required. The number of words used in this way is very large (see A. Smith, for additional instances; the following words are taken from his lists).

My friend the noble captain — the illustrious general — the bladder (1840). — *A tragedy queen, and a brimstone to boot* (1824). — *Hang off thou cat, thou bur* (1590). — *Dr Sanders the Popes firebrand in Ireland* (1583). — *We neither care for devout dunces nor for intellectual icebergs* (1882). — *They look'd Toward their chief and mouth-piece* (1805). —

And in the same way *stick, sponge, sieve, block, satellite, sapling, blunderbuss, screw, wall-flower,* and a host of other words.

(*c*) *Quality for Person.* Shakespeare says "Bring in the *admiration*" (the admirable person), and Polyxenes calls Perdita, *enchantment.* Juliet calls her nurse *ancient damnation.* In modern English we speak of *a failure, a fraud, terror, success, an awful warning, an inspiration, despair, hope, dependence, aversion, ruin, destruction, salvation, love, joy, delight, horror* (Bain I 190, Greenough & Kittredge 257). Some of these may be permutations, cf. 13.223.

I include here the use of titles such as *His Majesty, His Grace, His Holiness, Your Excellency,* if they are metaphors; they may be intentional transfers, non-figurative. But the following is clearly metaphorical: "Up goes my grave *impudence* to the maid" (Bain I 184).

(*d*) *Animal for Person.* These are often depreciative, more or less abusive appellations of human beings. The element of similarity is either a quality that is reprehensible or contemptible in itself, or else a quality that is neutral or favourable in an animal, but becomes reprehensible in a human being. Wundt (II 605) reckons in this group (Metapherwörter) "in erster Linie eine grosse Menge von Schimpfwörtern: so die Uebertragungen von Tiernamen auf den Menschen, wie *Esel, Rind, Schwein, Affe, Gans,* u. s. w. . . . Generell ist nur die Neigung, überhaupt Tiernamen als Schimpfwörter zu gebrauchen, eine Neigung, die sich hauptsächlich aus der dienenden, ganz von der Willkür des Menschen abhängigen Stellung erklärt, die das Haustier in dem menschlichen Leben einnimmt" (cf. Carnoy 325).

Slopper found him a species of barnacle rather difficult to shake off (1868). — *Such preetie Begles* (= beagles) *haue these Bishops . . . That hunt out Prebendes fatte for them* (1570). — *The French people of learning . . . are not bears as most of ours are* (1751). — *Oh you beast, Oh faithlesse Coward, oh dishonest wretch* (1603). — *Ulysses looking sourly answered, You Bitch* (1675). —

And similary *fox, pig, vixen, cat, snake, serpent,* and many others. *Lion* is one of the few that is used in a favourable sense. (See Greenough & Kittredge 363).

(*e*) *National Name* (*used for Individual*) *in Appellative Use. She was of a wild, roving nature, inherited from father and mother, who were both Bohemians, by taste and circumstances* (1848). — *I never knew your grandmother was a Scotchwoman: Is she not a Tartar too?* (1663). — Additional instances, see Reinius 169. Nyrop IV 381, quotes F. *spartiate* as denoting a person of rigid and firm character, which is in accordance with historical evidence, while *beotian* for a dull and stupid fellow is said to be due to an ill-natured quip on the part of a neighbouring province. Nyrop also quotes F. *suisse.* There was formerly in Paris a Swiss guard distinguished by a peculiar uniform. A similar uniform was worn by the gatekeepers of palaces belonging to the nobility, and these gatekeepers were often also Swiss. Hence *suisse* is used to denote 'gatekeeper, concierge'. But this is explicable as an adequation or permutation.

The present type is mostly depreciative, but *Greek* and *Roman* may be appreciative (cf. Carnoy 274 and Schreuder 96).

(*f*) *Proper Name in Appellative Use.* As the instances show, these shifts are either appreciative or depreciative, and the qualities referred to may be exterior. The name is often preceded by the indefinite article. The following instances are too well-known to require documentation: *Croesus, an admirable Crichton, Xantippa, Job, Jezebel, Judas, Shylock, Lothario, Mrs. Malaprop, Delilah, Darby and Joan, John Bull, Lovelace, Hector, Amadis, Celadon, Don Juan, Solon, Solomon, Cicero, Benjamin, Joseph, Benedick. Jonah* causes a storm, *Pandora* brings misfortune, *Ganymede* and *Hebe* wait at table, *Figaro* is a barber, *Mentor* and *Egeria* give good counsel, *Jehu* has his counterparts in modern life, and so has *Nimrod.*

In some cases the proper name has passed altogether into the class of appellatives: *martinet, pander.* The origin of *hooligans* is (according to Weekley, Words 12, and COD), a spirited Irish family, "whose proceedings enlivened the drab monotony of life in Southwark towards the end of the 19th century". *Magdalen* has given *Maudlin,* which was applied to people who were weeping, tearful, lachrymose, in allusion to pictures in which the Magdalen was represented weeping (Weekley, Words 61, and NED. See the lists in Östberg, Reinius 20, Nyrop IV 100, 364, A. Peterson, and Ev. Müller).

I reckon in this group names of relations used as appellatives: *father, nuncle, gaffer, gammer, daddy, granny, brother, sister, gossip,* are used in an extended sense of other persons showing some qualities in common with the original possessors of the name. At first the use was probably humorous or endearing (Reinius 186).

Proper names are sometimes more or less fancifully used of persons without any discoverable likeness between primary and actual referents. It is comprehensible that *Jack,* owing to its great frequency, becomes equivalent to 'man'. (Östberg 73 and 76). *Tom, Dick, and Harry,* is = 'everybody, the mob'. In other cases the appellation goes back to some real or fictitious personage: *Black Bess, Peter Rugg, Peeping Tom, Paul*

Pry, Anthony Cuffin; an Irishman is *Paddy,* a Welshman, *Taffy,* a man from the Tyneside, *Geordie,* and so on, because these names are common in the respective districts. Persons of rustic manners are called by common rustic christian names, as *Hodge, Hick, Hob;* and women: *Betty, Jenny, Mawks, Molly. Betty* and *Molly* are also used contemptuously of a man who occupies himself with a woman's household duties; *Miss Nancy* is a finikin, effeminate man (Östberg 49, 86, et al.) Slang and cant make an extensive use of christian names in this way.

(*g*) *Place Names in Appellative Use. Our house is a sort of Bedlam, and nothing in order* (1713). — *Every province . . . would in turn appear a Paradise, and a Pandaemonium* (1779). — *Bridewell,* from (*St.*) *Bride's Well,* in London, is "a place of forced labour, a gaol". *Babel, Mecca, Capua, Golconda, Tophet,* and others, are well-known instances (see Efvergren).

11.613. *Similarity of Perceptual or Emotive Effect.* The common element in this group is the similarity of perceptual or emotive effect on the subject. We touch here on one of the most difficult problems connected with metaphors, and very little can be said with any pretensions to definiteness.

(*a*). *Synaesthesia.* Synaesthesia is an association that connects elements from different sensory spheres (*Sinnesgebiete*), the point of similarity being constituted by their effect on the perceiving subject. (Cf. Siebold 5 sqq.).

It is somewhat doubtful what the precise nature of the common element really is. Spearman (242) states that the awareness derived from the several senses must at first always be perfectly alike, but this fact has perhaps no bearing on the matter in hand. Wundt (II 553—554) regards synaesthesia as a case of "complication" between "die einfachen Empfindungen und die an sie gebundenen sinnlichen Gefühle", and considers it due to the fact that disparate sensory qualities evoke similar feelings; a word denoting one kind of sensory impression can therefore be apprehended as an adequate name for an impression from another sensory sphere.

According to Sterzinger, synaesthesia is explicable if we assume that the point of similarity is a configuration, and he regards synaesthesia as "das Auftreten von Vorstellungen aus anderen als den primär erregten Sinnesgebieten durch Vermittelung oder auf dem Umwege über eine zwischensinnliche Gestalt" (Sterzinger, Arch. 37, 386 sqq.). These intrasensorial configurations Sterzinger considers as identical with the "unspezifische Momente oder Elemente" spoken of by Ruths (Exp.-unt. über Musikphantome, 1898, 196 sqq.). Some configurations are related to what Bühler calls Regelbewusstsein. Cf. Siebold 37.

Synaesthesia is especially common among adjectives (see 11.62), but there are numerous instances of nouns in E. von Siebold's lists (to which I refer; see also Elster I 387): *the sound and light of sweetest songs* (Swinburne), *The stars were the notes of the singing, and the moon was the voice of the song* (James Thomson).

I have no instance of synaesthesia effecting a permanent sense-change of a noun.

(*b*). *Abusive Words as Endearments.* An abusive word may be used in a sense that is the opposite of its primary meaning: *O heau'nly foole!* (Sidney, 1586). In these cases, a preceding process of adequation, involving disappearance of the cognitive elements of meaning (see 14.531), is apparently not to be assumed. The shift is effected, intentionally, in one movement. In some cases, we are able to point to a specific quality that excites the emotions of the subject. Thus, a *wretch* is often an object of pity and commiseration, because he is persecuted or otherwise unfortunate. But other small, weak, defenceless, things, who are not 'wretches' in the primary sense, are also objects of pity, and so a connection may be found to mediate a shift. *Witch* is used of 'a young woman or girl of bewitching aspect or manners'. For terms like *lamb, kitten, mouse,* the smallness, softness, playfulness, or rather their impression on the speaker, are more or less prominent: *O trusty turtle trewest of al trewe* (14 . .). *Ej, My dere lady, My mouse my nobs* (: darling) *and cony* (: rabbit) *swete* (1567). *God blesse thee Mouse the Bridegroome sayd, and smakt her on the lips* (1586). Cf. *Kätzchen, Mäuschen* (Wundt II 575 sqq.), *mon petit lapin.*

In other cases, no connection between the referents except the emotive element can be detected: pure terms of abuse may express friendship. The following is an instance, rather extreme but not uncommon: *"First Youth: Hullo, congenital idiot! Second Youth: Hullo, you priceless old ass! The Damsel: I'd no idea you two knew each other so well!* (Punch). Cf. German *Luder, Aas, Schelm,* and others, as terms of endearment.

Wundt (II 576) assumes that an abusive term as such possesses associations which give it a tendency to shift from hate to love. In the first place we have to think of the intensity of the feeling as such, without regard to its quality or direction. "Wie uns schon in den Benennungen der Affekte durch die Sprache überall die Tatsache entgegentritt, dass für die unlustvollen Affekte überall reichere und intensivere Bezeichnungen zu Gebote stehen als für die Lustaffekte, so verbindet sich auch in der affektvollen Rede mit dem Gebrauch gesteigerter Ausdrucksformen der Uebergang auf die negative Gefühlsseite, die um ihrer grösseren Intensität willen im positiven Sinne verwendet wird". The instinct for giving to the feelings as strong an expression as possible makes us resort to these words. The designations for unpleasant emotions are not only more numerous, they are also of a greater intensity. When we wish to express a very strong pleasant emotion, an expression in reality belonging to painful emotions easily presents itself as the most adequate symbol, adequate to the intensity, although disregarding the quality, of the emotion. In this process speech only follows the course of the emotions themselves, in which, when we have attained the highest intensity of joyous surprise, the sudden transition to painfulness follows, evoked by the concomitant physical processes. The change of abuse into endearments belongs to the instances in which the striving for an adequate relief to the emotion calls for the name of the opposite emotion. The feeling for the contrast thus evoked, and the feeling of humorous irony towards paradoxical expressions, may also be contributory factors. Wundt states that *furchtbares Glück* and *schreckliche Freude* also belong here, but I think that we have to make a distinction between words where a preceding process of adequation is likely to have pushed aside the cognitive elements of meaning, and instances where no such process has occurred, and where the metaphorical shift is therefore possible only intentionally, and as a more forcible deviation from ordinary usage.

Otherwise, Wundt is probably right in his explanations. The pivotal element in the change, the point of similarity, is evidently emotive, and the intensity of the emotion is the characteristic that evokes a word corresponding to it. Intense emotion is liable to inhibit other mental processes, and to attract all attention to itself; the disregard of the cognitive elements of the meaning is thus explicable, even without assuming a previous adequation. Context must also be considered, as usual. The feelings of the speaker for his or her interlocutor are such that any expression of emotion must be an endearment: the listener is in no doubt whatever on that point. The facial expression, tone of voice, and the whole behaviour of the speaker, often contribute to the effect, and provide additional context for guiding the interpretation.

(*c*). *Appreciative or Depreciative Uses.* A third group, related to the preceding, is constituted by the use of objects' names for persons. Here, too, there seems to be no previous adequation with disappearance of the cognitive elements. Thus in the following instance: *Lady, þat clept art modir of mercy, Noble saphir* (15th c.); and similarly are used the words *gold, gem, jewel, diamond, peach, daisy, cherry, honey,* and others. As in the preceding group, it is sometimes a specific quality of the referent that mediates the shift, as in the use of *lily* for denoting persons or things of exceptional fairness or purity: *The name of seinte Cecile . . . it is to seye in englissh heuenes lilie, For pure chastnesse of virginitee* (1386).

Similarly, words denoting vile or disgusting objects are applied opprobriously to persons: *It were better for a woman to be barren, Than to bring forth a vile wicked carren* (: carrion. 1547). *That dirt of a captain* (1658). See A. Smith for further instances.

11.62. *Adjectives.* Most adjectives denoting qualities of concrete objects can be used metaphorically of abstract things. The instances are innumerable, and I shall only give a few, as illustrations. A larger collection of material would perhaps show how to distinguish smaller groups, which I cannot do now.

I dradde after so noble spekers . . . to putte forþ my bareyn (: barren) *speche* (1387). — *You may easily perceiue what successe they are like to haue, that deale with so leaden and sandie braines* (1590). — *And he to me wit thow maid ony falt, To the that wil be ful sowre and salt* (1500). — *Well agyd now, but sappy strength he kepes of grener yeres* (1558). — *I am not saplesse old or reumatick* (1598). — *Blowe hence these sapplesse jestes* (1602).

Synaesthesia is, as I stated above, very common in adjectives. I quote the following instances from Stern, Swift 272 sqq. *Light* is used of food 'that does not lie heavy on the stomach, easy of digestion'; of wine 'containing little alcohol'; of medicines and other objects that may be apprehended as having an activity of their own: 'mild, gentle'; of immaterial objects: 'easy to bear or endure'; of temptations: 'mild, gentle'. *Sharp* is used of scourges and other objects that cause a pain similar to that caused by a sharp instrument, 'painful'; of weather: 'stinging, keen, intense, violent, vehement'; of a sound: 'penetrating, shrill'; of the rays of the sun: 'piercing, intense'; of words: 'cutting, severe, harsh, stern, peremptory'; of hunger, sorrow, etc.: 'stinging, intense, severe'; most of these senses are also found in *smart*. Cf. Lat. *acutus*. *Quick* is used of the voice: 'loud, clear'. Similarly *liflic*. We speak of *warm* and *cold* colours, and *warm* and *cold* friendship or reception. (Cf. Stöcklein 73, Carnoy 288 sqq., Siebold 102 sqq., Noreen, Betr. 283).

11.63. *Verbs.* As with regard to adjectives, I give only a few instances in illustration of the general practice of using concrete verbs in abstract meanings:

They . . . gonnen wade in meny an uncouthe glad and depe matere, As freendes don, whan they ben met yfere (Chaucer 1374). — *Some few merchants and tradesmen . . . may not grind them so as shall always keep them in poverty* (1626). — *I am obliged to 'grind', that is, undergo a private examination with an authorized teacher or tutor* (1835). — *Neither stuffe the bodye, nor choke the conceit, which it lightly doeth, when it is to much crammed* (1581). — *The sodayn dreade of euery bodely payne woundeth vs to the hearte and striketh our deuocion starke dead* (1534). — *For it neyther savoureth the spirite of God, neither yet any modest and good nature, but . . .* (1574). — *Hate teres of gretyng, þat þe synful sal scalden in þe dounfallyng* (1340). — *Nowe a wheale on suche noses . . . That so quicklie canne sente where hidden golde dothe lye* (1553). — *Her eyes were saluted with a tuft of trees* (1586).

11.7. Metaphors based on other Relations.

This type corresponds to permutations, and it is often difficult to discriminate the two. The same shift may no doubt be sometimes effected in either way, intentionally as a metaphor, or unintentionally through a permutation, and we do not always know the history of each word well enough to place it definitely.

Most of my instances are nouns. Adjectives, adverbs, and verbs, are so scantily represented that it does not seem worth while to class them separately. It is not impossible that, at least for adjectives and adverbs, this circumstance reflects a factual rarity of such metaphors in speech, but more research is necessary before a final verdict can be pronounced.

11.71. *Article of Dress, Tool, Implement, etc. for Person.* The earlier shifts of this kind give one the impression of being mostly permutations (see 13.218), but among later instances there are certainly many metaphors, since they are clearly used for reasons of style (humorous intention, etc.). I quote the following (from A. Smith).

Never reached by any other spiritual organizations except possibly the poke-bonnets at the corners of the streets (the Salvation Army women). — *Mr. Blower, the eminent silk-gown* (King's Counsel). — *Sweet-meats being great favourites with the pig-tails* (Chinamen). — *Two good knives and forks* (hearty eaters). — *Bung* is a nickname for the master's assistant who superintends the serving out of the grog. *Pen*, for writer, may be a permutation: *What harme may hap by helpe of lying pennes* (1563). *A book wherein a second Pen had a good share* (1605). But very often it is used with a stylistic purpose, and is then a metaphor.

As metaphors we should probably regard the plural type of such appellations: *guts, buttons, breadbags, chips* (a ship's carpenter. Kipling), *chops, gloss-eyes, marrow-bones, pudding-sleeves.* The earliest instance seems to be *velvet-guards*, trimmings of velvet, and hence the wearer of such trimmings: *Sweare me, Kate . . . A good mouth-filling Oath: and leaue in sooth, And such protest of Pepper Ginger-bread, To veluet-Guards, and Sunday-Citizens* (Shakspeare 1596). The reason for the plural form was that each person possessed the thing in plural number (cf. Nyrop IV 195, Carnoy 260).

11.72. *Symbol for Thing Symbolized.* When we say *crown, sceptre,* or *throne*, for 'royalty', the reason is stylistic, and consequently the shift is classed here. Other similar expressions are *mitre, strawberry leaf, altar, pulpit, hearth, bench, bar, wool-sack*, etc. (Cf. Nyrop IV 190 sqq.) *Ceres* is used for bread, *Bacchus* for wine, and similarly *Mars, Neptune, Pallas, Venus. Grey hairs* symbolize age, *Arabia*, spices, etc. *The power of the purse, the cottage, the palace* are other well-worn instances. "These symbols appeal to the senses, and help to make the subject more impressive" (Bain I 187). Some of the words adduced in the preceding paragraph may fall under the present heading. *Lawn*, or *lawn-sleeves*, is used not only for a bishop, but also for the office of bishop: *You ask me if I ever knew Court chaplains thus the lawn pursue* (1732). *A man of great Note for the sake of Laun-sleeves is aturning his Coat* (1710). Cf. 13.214, where corresponding permutations are listed.

11.73. *Material for Object.* The name of a material may be used metaphorically for objects manufactured from it: *steel* may designate a weapon of steel; "*the marble speaks*" (Bain I 193); *laurel* may stand for laurel wreath: *Laurear of martirs, foundid on holynes* (1430). Cf. permutations of the same type, 13.211.

11.74. *Proper Name in Appellative Use: For Persons.* The London Policeman is called a *bobby*, formerly also a *peeler*, both from the name of the founder of the corps, Sir Robert Peel. *Tommy Atkins*, the nickname of the Army man, is said to be from the official blanks in which the fictitious name of Thomas Atkins was inserted to show the recruits where they ought to fill in their own names (Östberg 77).

Possibly some of the names in 11.612 f should rather find a place in the present section.

For Animals. A *jack-ass* is a male, and a *jenny* a female of the species; similarly *nanny-goat* and *billy-goat, tom-cat* and *tibby* or *tib-cat; jenny-cat, jack-rabbit*, etc. *Poll* is the conventional name for a parrot, and hence designates any parrot (NED). The proper name combined with the animal's own designation generally denotes the gender, and the use of it alone may possibly be a shortening, according to Nyrop IV 361, who adduces *Renart goupil* > *Renart*, and compares *Robin mouton, Jeannot lapin*. Further instances, see Östberg 89.

For Objects. These shifts of proper names are sometimes, as far as can be gathered from the available evidence, "irrational", and should perhaps be classed in 11.78. I have provisionally placed them here.

The NED enumerates a great number of mechanical contrivances of different kinds which are all called *jacks*, and suggests that the name was applied to things which "in some way take the place of a lad or man, or save human labour", but adds, "also more vaguely of other things with which one has to do". Judging by the instances quoted, there is no real proof of the assumption that *jack* was at first used for things which more directly take the place of a man. The application of the same name to many different animals and flowers appears equally fanciful. Probably there is some reason and connection at the start, but what that is lies entirely outside our knowledge (cf. Östberg 99).

Jenny is also used for machines. The NED suggests that since *Jenny* is a feminine of *Jack*, it was used as a feminine prefix and as the name of machines. Again, the instances give no guidance for testing the assumption (cf. Reinius 143 sqq.). *Davit*, for machines, especially for the contrivance for lowering ship's boats, is from *David*, and the reason for its use in this way is uncertain. *Jemmy*, pet-form of *James*, for "a crowbar used by burglars, generally made in sections screwing together", is another unexplained shift. The same tool has earlier been called *bess* or *betty*. In German it is *Dietrich*, *Peterchen*, or *Klaus*, and the contracted forms of the first name, *dyrk*, *dirk*, have passed into Swedish and Danish with the same meaning (Weekley, Words 42; see further Östberg 98 sqq. French instances, Nyrop, Etudes 33).

The history of *grog* is more roundabout. It was first a nickname for Admiral Vernon, owing to his wearing a coat of *grogram*. When he decreed, in 1740, that rum was to be served out mixed with water, the sailors gave his name to the mixture (NED). *Gladstone* is used for a cheap claret, because Gladstone reduced the duty on French wines (Östberg 94). Drinking-vessels are not seldom provided with humorous or endearing names. See Östberg 100.

11.75. *Dates for Events. The Forty-five*, is not only the year 1745, but also the Jacobite rebellion of that year. *Le Quatorze Juillet* is employed as equivalent to the revolution of 1830.

11.76. *Habitual Expressions for Persons.* Habitual expressions may be used for the persons who employ them. Thus, the name of *jingoes*, for "the new tribe of music-hall patriots who sing the jingo song" (1878), is from the asseveration *by jingo* in a popular song of the period, when war with Russia was threatening. Later on the word has been extended to ultra-patriots of other times and other countries (Weekley, Words 13, and NED).

Nyrop (IV 210) states that in Paris slang an Englishman is called *un goddam* or *un goddem*; the form *un godon* is found already in the 15th century in Normandy; similarly in Spanish *un godon*. All these forms are from the oath *goddam*. A *parlez-vous*, for a Frenchman, is quoted by the NED from 1815. (Further instances, see Nyrop l. c., Carnoy 263, and Reinius, Onomatop. Bezeichn.).

11.77. *Place-names in Various Uses.* I select only the following illustrative instances from Efvergren, to whom I refer for further material.

Philistia is used for "the class or community of Philistines, *i. e.*, unenlightened or commonplace people, or the locality they inhabit". *Buncombe*, or *bunkum* 'political claptrap', from an episode in Congress, when the member for Buncombe, speaking unnecessarily, declared that the people of his constituency expected it, and that he was bound to *make a speech for Buncombe*. *Grub-street*, the name of a street "much inhabited by writers of small histories, dictionaries, and temporary poems", hence used metaphorically for the "tribe of mean and needy authors or literary hacks".

11.78. *"Irrational" Metaphors.* Metaphors are sometimes founded on an entirely arbitrary and fanciful connection, a witticism, or pun. I have already pointed out that some of the instances in 11.74 may belong here. A typical instance is *tandem* 'at length', applied to the harnessing of two horses one behind the other, instead of side by side.

Jespersen (Punning and All. Phrases) lists a number of such metaphors, mainly real or fictitious place-names. *I'm for Bedfordshire* 'I want to go to bed', and with similar meaning, *to go to Ruggins'; to send a person to Birching-lane* 'to whip'; *he got it by the way of Cheapside* 'he got it cheap'. *To travel by Mr. Foot's horse, to go by the Marylebone* (*marrowbone*) *stage, to ride shanks' mare,* all mean 'to walk'. (Cf. also Efvergren 109 sqq., and Carnoy 378).

11.8. Euphemism.

11.81. *Definition, and Formal Types.* I have defined euphemism as a tendency to tone down or veil dangerous, indecent, or otherwise unpleasant things, and also as the linguistic result of this tendency (Cf. 10.184, 11.42).¹)

The various linguistic forms which a speaker may employ owing to a euphemistic tendency, may be described as follows (see especially Nyrop IV 262 sqq.).

(1) Clipping or omission of the main word. A French instance is *jarni = je renie,* with *Dieu* left out. Nyrop also speaks of aposiopesis of an offensive word, which description covers many of the instances given by Wellander, Studien II 9 sqq. English instances are *Zounds* for *God's wounds,* where only the *-s* is left of the "dangerous" word; and *d—* or *d . . .*, for *damn* or *devil,* sometimes "pronounced" *dashed* or

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¹) See further Jespersen, Growth a. Str. 242, Carnoy 337, Hatzfeld, Leitfaden 107, Stöcklein 40. Nyrop (IV 257) states that euphemism "désigne maintenant l'ensemble des moyens linguistiques par lesquels on déguise une idée désagréable, odieuse, ou triste. L'euphémisme est donc un adoucissement, grâce auquel on évite le mot propre dans les cas où son emploi pourrait choquer pour une raison quelconque." He remarks that "l'euphémisme est dicté tantôt par la décence, la politesse, la prudence, tantôt par une certaine crainte superstitieuse; on y recourt par égard pour soi-même ou pour les autres" (l. c. 260).

deed (Jespersen, Gr. a. Str. 243). Nyrop lists this type separately as abréviation. In *My!* and *Oh my!* the offensive word is left out altogether. See also 10.184.

(2) Deformation or distortion of the offensive word is closely related to the preceding type. Under this heading come the well-known and well-worn *blooming* for *bloody, dash, darn, dum, Gosh, Golly, Gorry, Cox my passion, by cock, cock's bones, odd's bodikins, Gad,* and many others, which need not be translated (cf. Swaen, Engl. Stud. 24). Nyrop's *substitution* (l. c. 264) in which a word with different meaning, but similar in sound, is substituted, is related to what I have called "irrational" metaphors (11.78). *Il a de la menthe dans son jardin = il mente.* It may be classed here.

(3) A foreign word is substituted, which, being less definite in meaning, is in the same degree less offensive. Beckman (131) explains this by the circumstance that the foreign word is more or less a blank, which obediently conforms to the use we make of it, while the native word has numerous undesirable associations with the offensive thing, and means exactly what it means (cf. Cederschiöld, Kvinnospråk 99). Another circumstance to be noted is that the foreign word is sometimes of a more general meaning, as described in the next group. Instances are *chemise* for *shift* or *smock, lingerie* for *underclothes, effluvium* for *stench, perspiration* for *sweat, intoxication* for *drunkenness, maniac* for *madman, dipsomaniac* for *sot,* etc. (Greenough & K. 306, Nyrop l. c. 264). The use of an obsolete word of the same language is preferred on the same principle.

(4) A term of vague or general import is used instead of the more precise word. *Flannels* or *linen* for *underclothes, smallclothes* for *breeches,* and similarly in various senses *misconduct, misguided, misdemeanour, offence, fault, slip, lapse, transgression, excesses,* etc. These last words may also be classed in nr. 6 (Greenough & K. 305).

Nyrop (IV 266) points out that in this way a word of general import may receive two or more specific euphemistic meanings. In Le médecin malgré lui, Sganarelle says to a woman that her husband deserves *qu'elle lui mette quelque chose sur la tête; il a eu quelquechose entre eux* means that there has been a dispute; *il a pris quelquechose,* that he has been severely trounced. We are reminded of the corresponding use of German *etcetera,* adduced by Wellander (Studien II 13): *ich hiess ihn einen et cetera; sie führe ein liederliches Leben, und gebe ein offentliche*

& cætera ab. The word may mean 'podex, crepitus ventris, devil, cacare' etc. This might be called a pronominal use.

(5) Flattering words, or words denoting the opposite of that which is meant, are sometimes used (Nyrop l. c. 267: *noms flatteurs* and *antiphrases*). *Blessed* is used for 'cursed': *every blessed evening.* The results of taboo often belong to this type, which touches upon irony.

(6) Litotes is sometimes euphemistic, and it is only natural that the two figures should be closely related, especially the form of litotes that consists in negating the opposite of that which is meant (11.57). *Untidy* or *unclean* is used for *dirty, untruthful* for *lying, intemperate* for *drunken, unwise* for *foolish, unsafe* for *dangerous, impolite* or *uncivil* for *rude,* etc. (Greenough & K. 307). I am not sure that all these words are really euphemistic; at least the NED gives no indication of such a shade of meaning for them. Nyrop gives French instances that appear more convincing: "une vieille femme *n'est plus jeune,* une pièce ennuyeuse *n'est guère amusante*", etc. In English one speaks of *a lady of a certain age, the discipline leaves much to be desired,* and so on. We do not like to say, *that is a lie;* we say instead, *I am afraid that you have been misinformed, there must be a misunderstanding.* A long-winded orator tries to keep his audience in good temper by assuring them that he *is only going to say a few words more;* the man who *will be back in half a second* employs the same method.

Slang and cant are full of these euphemisms: even if a thief is speaking only to his comrades, he will prefer not to say that he is going to *steal:* he is going *to do a job. Corriger la fortune* is a polite French circumlocution for cheating at cards (cf. Cederschiöld, Kvinnospråk 78 sqq.).

(7) We have, finally, the clearly metaphorical euphemism. To this type belong, among many others, *to go to a better world, to join the majority, to go west* (Jaeger 289), and other expressions for dying. In Australia a transported convict used to be called *an old hand* (Greenough & K. 305). *Sent up* means put in prison; *to draw the long bow,* is the same as *giving a free rein to one's imagination,* which latter phrase perhaps also belongs here. *A fairy tale* is a lie; *to be a sport* has often a distinctly unfavourable meaning. *A rest camp* is a cemetery (war slang; on this see Jaeger).

11.82. *Causes of Euphemism.* One kind of euphemism originates in ancient taboo. The name was regarded as an integrating part of a being, human or otherwise, and the use of the name was believed to attract the being itself, which might lead to fatal consequences in the case of evil and powerful spirits. Cf. the German proverb *Wenn man den Wolf nennt, kommt er gerennt,* and the Swedish *När man talar om trollen så dansa de i farstun,* 'when you speak of the witches, they are dancing at the door'. This belief led to the avoidance of the real names of gods, demons, and other dangerous beings, and the use of numerous circumlocutions and metaphors. The *bear* is 'the brown one', the wolf in Swedish *varg* 'the outlaw'. The most famous example is the Hebrew name of God, which was not to be used by any one. (Cf. Güntert, Die Sprache d. Götter, Beckman 142, Oertel 304).

The knowledge of the name was believed to confer to some extent a power over the thing or person named. Solomon's power over the spirits was founded on his knowledge of their real names. Although this superstition has still a firm hold on many people — perhaps not least in England — euphemisms of this kind are mainly traditional, or due to an unwillingness to sin against what is considered good taste, by using words forbidden in polite society; that is to say, euphemisms of taboo merge into the second type.

The second type of euphemism may be termed the euphemism of delicacy or good breeding, and consists in avoiding that which might fall beneath one's own dignity, or below the level of style that we adopt, or which might wound the feelings of the hearer, or sin against the prevailing standards of decency or good behaviour. To this type belongs the euphemism of decency, which seeks new and indirect appellations for things, or actions, that are not considered mentionable in polite society: *lavatory, unmentionables,* and many of the instances already quoted above, innumerable names for the state of intoxication, for parts of the body, for articles of clothing, and so on (Weekley, Words 98, Jespersen, Growth a. Str. 245). Some of these euphemisms should perhaps be considered as the result of various styles being used. If two medical men in a discussion use the word *podex,* that is not a euphemism, but a technical term the use of which belongs to the style they employ. But if some one else, in a discussion otherwise carried on in untechnical language, says *podex* — that is a euphemism, because he does it to avoid the use of an English term.

A very large group of euphemisms is formed by expressions intended to put something in a way that shall not wound the feelings of the hearer.

In speaking to some one who *has suffered a loss* by death, we do not like to use the word *die*, but prefer to say *pass away, go to his last rest*, and so on; cf. *departed, removed, fallen asleep, if anything should happen*, (Bain I 183). Such expressions are resorted to by a speaker for his own sake (*I cannot bear to speak of it*), so as not to harrow his own feelings unnecessarily.

The numerous euphemisms for 'kill' may be of either kind: *to make away with, to put away, to finish, to settle, do for, remove, he must disappear*, etc. (Greenough & K. 303). They may be the result of a desire to present what the speaker is doing in a favourable light. Cf. *make a job* and *corriger la fortune*, quoted above. Many people will say *lend me a fiver*, although both parties know that *give me a fiver* would be more adequate.

In order to spare a person's dignity, we will say that he is *stout, plain*, or *deranged*, rather than fat, ugly, or mad. This is especially the case when we are speaking to a person; cf. the already quoted *you have been misinformed*, and similar expressions.

Generally speaking, the causes of euphemism are to be sought in the striving of the speaker to adapt his words to the effect which he wishes to make on his interlocutor, an effect which might be said to consist in the avoidance of certain unpleasant associations. We have now to discuss the manner in which this effect is attained.

11.83. *The Psychic Process.* What is the characteristic feature of the process of speech when we say *pass away* instead of *die?*

Taking first the case of the listener, it may be said, generally speaking, that the word indicates the referent, assisted, as usual, by context, and further, that the word, being metaphorical, carries with it associations from its primary meaning, giving a certain colour to the actual referent. The effect of this is to tone down too glaring colours, to present offensive things in a more delicate manner. The explanation of this ability on the part of euphemistic expression is, I think, to be sought in the factors that have been described above in analysing metaphors proper (11.5).

The habitual, direct appellation, for instance *die*, is used of the referent in all contexts and situations. It is associated with the referent in all its aspects, even the most sordid or painful. A person who has just suffered a loss through death is naturally very sensitive on that point; the painful aspects of dying will be prone to arise in his mind on the least provocation. But if instead he hears death spoken of as a passing away, a going to one's rest, a less disagreeable side of the referent is presented to him: a peaceful departure, a leave-taking for eternal rest. Such a term is not used in connection with the idea of painful death-struggles, putrefaction, worms, and other disagreeable concomitants of death. These associations are kept in the background, and in consequence the mentioning of the topic will be less liable to wound the feelings even of a sensitive person (cf. Carnoy 338).

The effect is thus double: the avoidance of unpleasant associations, and the suggestion of less unpleasant, if not positively pleasant, ones. The speaker has often at his disposal more than one euphemism, and may select the one that best fits the occasion.

Euphemism is often a matter of tone and manner. A person speaking of indecent things may do so in such a cool, dispassionate manner that the effect is one of euphemism even if the plain names of the objects are being used. On the other hand, a formally euphemistic expression, spoken in a suggestive, insinuating, unpleasant manner, may appear the height of cynicism. Cf. the well-known line in Faust: *Ist über vierzehn Jahr doch alt* — which formal euphemism, but actual cynicism, revolts even Mephistopheles: *Du sprichst ja wie Hans Liederlich.*

In the case of *pass away* and similar euphemisms, the required tone of voice will not be cool, dispassionate, but consoling, compassionate.

Euphemisms are evidently employed not only for the sake of the interlocutors, but also by the speaker for his own sake (cf. Nyrop, quoted above). An indecent, vulgar expression would not fit into the style of speaking employed by an educated person of some refinement, accustomed to keep his expressions at a reasonably high level of style. It would wound his own sense of dignity, as much as the susceptibilities of his hearers. In many cases, however, the reason for avoiding a certain expression is nothing better than an exaggerated respect for Mrs. Grundy. (Cf. Jespersen, Growth a. Str. 245, and Fowler, MEU, s. v. Genteelisms).¹)

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¹) Wellander (Studien I 190) sets euphemism in opposition to hyperbole, which latter involves a strong emotion. "Der Euphemismus entspringt der ruhigen Ueberlegung; der Redende will jeden Affekt vermeiden und weicht dem Ausdruck jedes stärkeren Gefühls aus: daher der allgemeine, abstrakte, bloss andeutende Charakter, der meistenteils dem euphemistischen Ausdruck eigen ist". A glance

The analysis in 11.51 applies in many respects to euphemisms, and need not be repeated in detail.

11.84. *The Sense-change.* With regard to the sense-change involved in euphemisms, we have at present only to discuss the transfer that may follow immediately, not the adequation that may ensue on habitual use.

The last type described in 11.81 (nr. 7), being metaphorical, involves an intentional transfer, as described for metaphors. As for the other types, nrs. 1 and 2 may be left aside with a reference to ch. 10. Nr. 3 scarcely involves an immediate sense-change, if we keep to the strict letter of my definitions. We have to assume that *chemise*, when first used for *smock* or *shift*, really expressed a different way of apprehending the referent — otherwise it would not have been euphemistic. With repeated use, adequation may set in, but on that point I refer to ch. 14.55. The same arguments apply, I think, to nr. 4, and perhaps also to nrs. 5 and 6, but the matter requires further investigation.

11.9. Irony.

According to Bain (I 213) "irony consists in stating the contrary of what is meant, there being something in the tone or the manner to show the speaker's real drift . . . Job's address to his friends is ironical: 'No doubt but ye are the people, and wisdom shall die with you'. So, also, are the words of Elijah to the prophets of Baal: 'Cry aloud, for

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at the instances above is enough to show that euphemisms are the product of emotion; if that term is extended to cover also stylistic purposes, all euphemisms are emotive. Even if it is taken in a narrower sense, Wellander's contention is clearly not correct: the speaker who tries to hold his audience by assuring them that he will only say a few words more, may throw as much feeling into his words as any hyperbolical orator. The friend who comes to console one that has suffered a loss, and speaks compassionately of the dear one that has passed away, does not speak unemotionally; but on the contrary, with deep emotion. The point is not to avoid all emotion; the point is to avoid emotions of a certain kind, and this is done, as the instances show, either by substituting another shade of emotion, or by unemotional speech. The three adjectives *allgemein, abstrakt, andeutend*, by which Wellander seeks to characterize euphemisms, cannot be accepted without considerable reservations. *Andeutend* may suit all euphemisms, but *allgemein* fits only some of them; I refer to my instances. And why *abstrakt*? Surely *wohlgenährt* is as concrete as *dick*, and *die Speise nicht behalten* cannot very well be less concrete than the verb for which it stands (the instances from Wellander, l. c. 191).

he is a god; either he is talking or he is pursuing, or he is on a journey; or peradventure he sleepeth, and must be awaked' . . . Bentham, in his attacks upon the English Law, constantly describes it as our 'matchless constitution' . . . The Mark Anthony oration is full of ironical effects. Such is the re-iteration of 'honourable men' applied to the murderers of Cæsar".

Irony is a typical case of indicated purport (see 4.265), in which the primary meaning of the word may be said to furnish one fundament, the relation of contrast is deduced by the hearer from context, and the second fundament is the actual meaning, at which the hearer arrives. The actual meaning is more or less the opposite of the primary meaning, and irony is thus the figure of contrast par excellence.

If a speaker exclaims, *you are a fine fellow!* with ironical intention, we have to assume that the context, perhaps especially the external context, the previous behaviour of the "fellow" that calls forth the exclamation, plainly indicates to the hearer that the speaker really means just the opposite. In oral speech, the tone of voice often assists comprehension; it may express indignation, or contempt, or any other emotion that is incompatible with the literal meaning of the phrase. But too much importance should not be attached to this point. Irony is sometimes all the more effective if spoken in a cool, dispassionate voice, and in written language intonation is often not indicated. It seems that the general situation is the most important factor for guiding the hearer to a correct comprehension: the irony is understood *en fonction du schéma d'ensemble.* Bain instances the sustained grave irony of Swift's Gulliver's Travels and The Tale of a Tub.

The reason for the superior effectiveness of the ironical expression is the implied or expressed contempt or derision which must intensely annoy the person against whom they are directed, in addition to which, as Bain points out, it embarrasses an opponent by giving no opening for a reply. The speaker feigns agreement with his interlocutors, but by slightly exaggerating their claims he makes them seem absurd, and a legitimate object for scorn. He thus attains a stronger effect than by stating in so many words his real opinion: *No doubt but ye are the people, and wisdom shall die with you* . . . The irony paves the way for the subsequent serious argumentation: *But I have understanding as well as you.* Sometimes the irony does not involve an exaggeration, but leads the hearers to conclude for themselves that the other party's pretensions are absurd. A conclusion which we make ourselves from the facts before us is generally more convincing than one which is forced upon us. Mark Anthony's speech is a good instance. The radical deviation from the habitual mode of expression contributes to the effect of irony, since a feeling of surprise draws the attention to, and intensifies, emotions associated with or immediately following it (see 11.41).

Turning now to the question of sense-change, we may take as a typical instance the exclamation *you are a fine fellow!* intended to mean just the reverse. Are we to assume an immediate sense-change for the adjective *fine*, just as we assume a sense-change for a word that is used in a metaphorical expression?

According to my definition, the meaning of a word is the speaker's apprehension of the referent denoted by it, in so far as this apprehension is expressed by the word. Applying this definition, we have to say that the speaker's opinion of the referent is that it is 'not fine'. Further, it seems indisputable that the speaker *denotes* the quality in question by the word *fine*. But is this meaning, this notion, really *expressed* by *fine*? The question is difficult, but I am inclined to answer it in the negative. It seems to me that the meaning is expressed indirectly, through an eduction of correlates. I admit, however, that the matter is by no means clear.

On the other hand, if the ironical expression becomes habitual, adequation may set in, and the depreciative meaning becomes the real meaning of the word. See 14.56.

Bøgholm states that there are three classes of words that are especially liable to be used ironically. (1) Laudatory terms, as *beautiful, fine, nice, precious, pretty: A nice job I have! Things have come to a pretty pass! Most precious nonsense! A fat lot of good it's done us! You're a beauty, Elisha!*

(2) Old-fashioned and pompous words, which throw a comical light over the whole expression. *He reproaches me with treachery, because forsooth I had not sent him a challenge! The fickle moon! quotha! I wish my friends were half as constant! I passed on and left him orating.*

(3) Intensifiers used ironically instead of down-toners. *A lot you know about that!* A similar instance is the use of *much*, as signifying 'not much'. Falstaff speaks of men as their fathers' shadows, adding: *but much of their fathers' substance!* Cf. the modern expressions, *much you care! much he knows!* and the curious *not half!*

In addition to tone and facial expression, the ironical intention may be expressed by a changed word-order: *Much you care about my feelings!* (Bøgholm, Bet. 116).

I have to leave the matter with these remarks. Much additional research is necessary before we get a thorough grasp of the nature, causes, and effect of the figures.

CHAPTER XII

CLASS V. TRANSFER

12.1. Theoretical Discussion.

12.11. *Analysis.* We now come to what are sometimes called the "regular" types of sense-change, that is to say, changes that occur unintentionally in the course of ordinary discourse: transfer, permutation, and adequation. When necessary, in order to distinguish it from intentional transfer (11.3), the present class may be termed *regular transfer.*

Regular transfer is the unintentional use of a word to denote another referent than the usual one, owing to some similarity between the two referents. The similarity in question is, at least for the momentary purpose, essential.

Schematically, the transfer may be described as the use of a word habitually denoting the referent *abcd*, to denote instead the referent *cdef*, because the elements *cd* for the moment are the only ones relevant to the context, and therefore predominate in the speaker's attention, to the exclusion of the elements *ab* and *ef*. In other words, *cd* are central elements of meaning (see 4.16), on which the meaning is specialized (see 4.24).

The psychological explanation of this type is similar to that of metaphors based on similarity (cf. 11.6). Each referent has more than one characteristic; in so far as these are separately apprehended, there is in the meaning of the name a corresponding plurality of elements. Not only the meaning complex, but each element of it, is associated to the word. The thought of any separate characteristic of the referent, if sufficiently salient in attention, will be a sufficient stimulus for recalling the word.

The momentarily irrelevant characteristics of the two referents, *a b* and *e f*, and the corresponding elements of the meanings, have been placed in brackets in the diagram on the next page. The identical characteristics cannot be assumed to be absolutely identical in the two referents, since in the one case they are apprehended as characteristics of P, in the other as characteristics of Q. I have therefore marked them *c d* and c_1 d_1, respectively, and the corresponding elements of meaning have been similarly distinguished.

$$\begin{tikzcd}
\textit{Word:} & X & & Y \\
\textit{Meaning:} & (\alpha\beta)\ \gamma\delta \arrow[u] \arrow[urr] & & \gamma_1\delta_1\ \ (\varepsilon\zeta) \\
\textit{Referent:} & \dfrac{(a\ b)\ \ c\ d}{= P} \arrow[u, dash] & & \dfrac{c_1\ d_1\ (ef)}{= Q}
\end{tikzcd}$$

If a speaker is talking of the referent P, and specializing on the characteristics *c d*, which for the moment are central in attention, while the elements *a b* are inhibited, the thought of the former elements, $\gamma\delta$, may evoke in his mind, theoretically, either the word X, which is associated with $\gamma\delta$, or the word Y, which is associated with the elements γ_1 δ_1 (cf. the diagram and analysis in 11.51)1))

It is the normal thing for a word to occur in a specialized meaning. An object, as for instance a *brick*, has various characteristics. As explained in 4.24, a speaker using the word may be thinking primarily of the form and size of bricks, or of their consistency and resistance to pressure, or of their colour and exterior appearance, or of their function as elements in a building, or he may be thinking of them simply as undifferentiated entities. If then, a speaker perceives an object of brick-like shape, it will come natural to him to call that object a *brick*, because he is accustomed to call an object of that shape a brick without for the moment paying any attention to the fact that real

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1) Stout (Psych. I 285 sq.) states that "it may happen that under conditions which would otherwise give rise to conflict, no appreciable conflict actually ensues, simply because either the old or the new combination is relatively so powerful as to overbear the tendency opposed to it without a struggle. Suppose the components of the one combination are *abc* and of the other *abx*. *C* may be favoured from the outset, so that it simply displaces *x* without any feeling of discrepancy arising, and without any attention to the difference. This process . . . may take place between a new percept and the predisposition left by previous percepts; when this happens, it may also extend to the corresponding memory-image, inasmuch as the modified perception gives rise to a correspondingly modified idea".

bricks have other characteristics too, which are not to be found in the actual referent; these characteristics are not attended to for the moment, and so cannot prevent the transfer.

The transfer is thus intimately bound up with one of the fundamental facts of meaning: that we practically always mean, or refer to, a referent in a specific aspect, in which only certain elements of the semantic range are of interest, and function as central elements of meaning. The possession, by a referent, of numerous characteristics will present correspondingly numerous starting-points for transfers, as well as for other sense-changes.

This explanation involves a restriction of the term transfer to denote shifts that are based on similarity. It has often been assumed that a word could be transferred to denote a referent standing to its primary referent in practically any relation. In my opinion, the material at present available shows that this is improbable. If we mean by transfer a shift of meaning that may occur unintentionally and without the mediation of a peculiar verbal context, the restriction is necessary. When the relation between the primary and the actual referent is not one of similarity, the shift is not so simple, and can occur only through the mediation of a peculiar verbal context, as described in the next chapter, or in the form of an adequation (ch. 14). For a transfer a specific point of view is required, but not a specific verbal context.

The transfer is the simplest type of sense-change, which agrees with the fact that it is extensively used by children to supply the gaps in their vocabulary, *aus Sprachnot*. Since children often have only a vague idea of the real range of a word, their transfers are sometimes "wild", as compared with those of adult persons.

The transfer is performed entirely by the speaker. The hearer's part is only to understand the shifted word, which will present no difficulties, since the shift is, by definition, so simple and self-evident that it passes unperceived.

It is evident that there can be no equivocation (cf. 13.12) in a transfer. A *brick* is either a brick of clay, or it is any other brick-like object to which the name has been applied, but the word could not possibly have an alternative meaning, as a word can in a permutation.

A successful transfer, one which is repeated and adopted by the speaking community, is followed by adequation (see 14.6), so that the word becomes capable of being applied to the actual referent even when the elements in which it differs from the primary referent — the elements *a b* in the diagram — are no longer inhibited, and even when they are predominant.[1])

12.12. *Conditions and Causes.* The conditions of transfer will be evident from the remarks in the preceding paragraph. A transfer can take place when a referent is apprehended in a particular aspect that makes only some of its characteristics stand out in attention, as central elements, and when, in addition, these characteristics are also to be found in another referent, the name of which can, consequently, be used for the first referent. As far as I can see, no particular verbal context is necessary, but only a specific aspect or point of view that makes some characteristics salient, while the others are inhibited. Possibly further investigation will be able to formulate conditions which we cannot at present perceive.

As a favourable factor we have probably to consider the great frequency of all the common types of transfer. Every speaker is familiar with the method of transferring a word to another referent which has some characteristic in common with the primary referent. It is possible that some transfers "go in a series". Thus, when names for parts of the body are used for parts of a ship, perhaps a beginning was made with some obvious identity, as for instance *side*, and the series was continued with other names (cf. Falk 83).

With regard to the ultimate causes of transfers, they should be sought in the functions of speech. By definition, it is the speaker's striving to make speech fulfil its symbolic and communicative functions that is active. Further, the process is unintentional. The new word offers itself spontaneously as a suitable expression for what the speaker wants to say, and is as spontaneously accepted, the speaker attending only to the content of his speech, leaving the form of it to the more or less automatic action of lower centres.

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[1]) The distinction I have made, between shifts based on similarity — transfers — and those based on other relations — permutations and adequations — corresponds more or less to distinctions made by some earlier writers, for instance by Wundt, between sense-changes with constant and with changing predominant element of meaning, and by Falk between changes based on associations of similarity, and those based on associations of contiguity.

The question why a new word is evoked and accepted, is a very difficult problem. One reason may be *Sprachnot*, shortage of words. We should probably interpret the term as indicating not only a lack of words in the absolute sense, but rather as referring to the momentary supply or command of the vocabulary. It may happen that an otherwise perfectly familiar word does not arise at need, and it may then easily be replaced by another name for the referent. We have all experienced the unpleasant sensation of not remembering a word, even if we direct our attention to the task of finding it; the same thing must happen also when we are *not* attending to the finding of words, and leave to the automatic processes the task of finding a substitute. And we have all heard speakers, without noticing the discrepancy, using words that do not at all fit into the context. If quite discrepant terms may displace the correct name, and pass off unperceived, it must be still easier for a new term that does fit the context to be unintentionally employed, and accepted without demur, both by speaker and hearer.

It is possible that a word for some reason, recent use or frequent use, is more easily evoked than the ordinary term for a referent. Many persons have, in their daily work, a stock of words which are in constant use because they denote referents that one has constantly to do with; it is natural to assume that such words are favoured in comparison with others and have a lower liminal value, arising in mind on a slighter stimulus. Perhaps a word may be favoured because it has pleasant associations for the speaker. The possibilities are no doubt many, although we cannot at present enumerate them in detail.¹)

Whatever the reason for the individual speaker's choice of terms, it should not be forgotten that no sense-change results until what is at first an individual trait has become an affair of the speaking community or at least of some considerable group of speakers. We should therefore take into consideration only such motives as may affect a number of persons in a similar way.

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¹) I do not think it is correct to ascribe the choice of one word in preference to another to the exclusive action of emotive factors, as Sperber does. Habit is not a feeling or the effect of feeling, but a tendency to repeat actions to which the organism has adapted itself more and more in the course of its own activities. Also, the daily work is for most persons an entirely unemotional affair; it is the change, the recreation, that is emotionally coloured (cf. 7.43 and Stern, Litteris III 59).

There is nothing in the diagram in 12.11 to show why the transfer proceeds in one direction in preference to the other: in other words, why the name of the referent Q is used for P, and not vice versa. In many cases at least, the process apparently does work in one direction only, a circumstance that has not yet been investigated. Generally speaking, I think we may say that the name of a referent that lies closer to us, that is more familiar, or more concrete and palpable, or in which the quality that serves as common element is more salient, is employed to denote the referent that lies farther away, is more or less strange, or less concrete and palpable. This agrees with the assumption that the lower liminal value of some words may cause them to be used in a transferred sense.

12.13. *Delimitation and Definition.* The question concerning the correct delimitation of transfers has already been touched upon above, with regard to nominations based on similarity. The diagram below will show how the classes IV—VII in my system border on each other.

<table>
<tr><th></th><th colspan="2">Intentional</th><th colspan="2">Unintentional</th></tr>
<tr><td><i>Similarity</i></td><td rowspan="2">Nomination</td><td>Intentional Transfer
Figures of Speech</td><td>Regular Transfer</td><td rowspan="2">Fluctuation</td></tr>
<tr><td><i>Other Relations</i></td><td>Intentional Transfer
Figures of Speech</td><td>Permutation and Adequation</td></tr>
</table>

I have defined the term intentional as signifying that the speaker's attention is directed, more or less consciously, to the *form* of his utterance, not only to its content (11.13). Consequently regular transfers are characterized by the circumstance that the speaker is directing his attention only to the content of his utterance, leaving its form to the more or less automatic action of lower centres. In such circumstances, a transfer can take place only if the common element is *essential* to the referent. This gives us a theoretically definite criterion for the distinction between intentional and regular transfer.

Further, regular transfers are often closely related to figures of speech founded on similarity. In order to distinguish them, I class as figures of speech all instances in which the speaker is seeking for a more adequate filling of the expressive and purposive functions of speech, including aesthetic (stylistic) purposes (cf. 11.42).

I have consequently restricted the term regular transfers to instances where the motive power is the striving to fulfil as adequately as possible the symbolic and communicative functions of speech, and where therefore no emotive factors are involved. I have no doubt that some scholars will want to move many of my metaphors over to the present group, while others would prefer to include the whole class of regular transfers among the metaphors. The question is partly one of expediency: we have to choose a distinction which has at least some chance of application to facts; a distinction that is theoretically clear is sometimes inapplicable to the linguistic material.

The regular transfers are distinguished from permutations and adequations by being based on similarity (cf. 13.14 and 14.14).

There remains, finally, the distinction between transfers and fluctuations, perhaps the most difficult of them all (cf. 7.13). Fluctuations are variations of meaning which do not lead to "another" meaning, but stop within the range of the word. As a possible criterion, I suggest the fact that fluctuations keep within the same category, while a transfer does not do so.

We should probably regard as fluctuations the variations in meaning of the word *land* in phrases like *land and sea, land and water, land and people*, or of the word *state* in *state and society, state and people, state and church* (Wundt II 537). On the other hand, if we employ the word *saddle* to denote a mountain ridge shaped like a saddle, the two referents do not belong to the same category. There are, as always, a large number of intermediate instances, difficult to classify.

On the basis of these arguments, I define regular transfers as unintentional sense-changes based on similarity.

12.14. *Classification.* As stated in 11.31, I intend to follow the same principles in classifying transfers as I did for figures of speech. Consequently I begin by distinguishing the parts of speech, and within each of these groups I further separate the instances according to the nature of the common element; the identity on which the transfer rests may be an identity of appearance, of function, situation, etc. As usual, the material is scanty for adjectives and verbs.

The transfers are exceedingly frequent in all languages, but since they are of a very simple type, they do not vary much. It is therefore not necessary to give so many instances; a few typical cases will suffice to give an idea of the nature of this kind of sense-change.

12.2. Nouns.

12.21. *Identity of Appearance.* We have, first of all, nouns denoting the simple geometrical and stereometrical shapes, with typical forms that strike the eye and furnish the predominant element of meaning, on which a transfer may rest. *Ball* is transferred to 'a globular or rounded mass of any substance', and to 'objects or parts with rounded outline'; similarly *cone*, *cube*, *pyramid*, *tube*, etc., and everyday objects of conspicuous shape, as *stick*, *board*, *lane*, *vein*, *ladder*, *barrel*, *bowl*, *belly*, *bag*, *brick*, *leaf*, *ring*, *tongue;* a *bush* is any bushlike bunch or tuft, a *bear* is 'a rough mat for wiping boots on, a block covered with shaggy matting, and used for scrubbing the decks of vessels' (or is this intentional?). With regard to *bridge*, *bow*, *saddle*, and many others, not only the appearance, but also the function may serve to mediate a transfer. Thus, *saddle* may be used of 'some thing resembling a saddle in shape: a depression in a hill or line of hills; a long elevation of land with sloping sides, a ridge, esp. one connecting two hills; also, a similar formation of ice or snow', or it may signify 'a block on the top of a pier to carry the suspension cables; a 'seat' or support on which a gun is placed for bouching; a bracket to support the (telegraph-) wire on the top of a pole or ridge; and various other technical appliances'.

A *wafer* is a 'light, thin, crisp cake, baked between wafer-irons'; or 'a thin disk of unleavened bread used at the Eucharist', and the name is transferred to 'a small disk of flour mixed with gum and non-poisonous colouring-matter, or of gelatine or the like similarly coloured, which when moistened is used for sealing letters, attaching papers, or receiving the impression of a seal'; also to 'a thin leaf or paste, used to form a cachet for the administration of powder'.

12.22. *Identical Function.* It is often impossible to decide whether identical appearance or identical function, or both, have been active in determining the transfer. A *bonnet* is 'a protecting covering or defence' in various technical uses; a *bed* is the 'last base or surface on which anything rests'; a *bolster* is used of 'various things in the nature of a pad, various parts of mechanism which form a solid support or base, on which other parts rest or exert pressure'; a *bark* is 'an outer covering or husk'; a *leg* 'something more or less resembling a leg or performing its relative function as a support for a body'. In this case perhaps also the situation in a totality, under the 'body', may have contributed to the change. *Bridle* is used of various things resembling a horse's bridle in form or use. *Mouth* is 'the mouth of a river or bay' (cf. Norw. *fjordkjæft, elvarkjæft,* French *bouche*). *Wagon* is used of many different kinds of vehicle.

12.23. *Identity of Relative Situation within a larger whole.* When we speak of the *legs, arms, feet, body, head, neck,* etc., of an object, probably both appearance and relative position[1]) may be involved in the common element; with regard to *front, back, top, bottom, sides, waist,* and other similar terms, probably only the relative position. When we speak of the *root* of a hair, function and relative position have no doubt both contributed to the shift. The latter factor is perhaps alone in *bough* 'anything analogous to a limb of a a tree, in being a lateral extension or subdivision of a main trunk'; and in *brow* 'projecting edge of a cliff or hill, standing over a precipice or steep'.

12.3. Adjectives.

12.31. *Identical Appearance, Form, or Structure. Sharp* may be used of the nose, referring only to the appearance, and losing the implication of cutting or penetrating. *Quick* originally meant 'living'; it is used, perhaps owing to foreign influence, of coals, 'burning', and of water, 'running, flowing'. *Fast* 'immovable, inflexible, stable', is used of a covenant or law: 'firm, stable, reliable, not to be broken'; of friendship or fidelity: 'firm, steadfast'; of sleep: 'deep, sound, not easily broken'. (These instances are from Stern, Swift 272 sqq.).

The adjectives denoting simple shapes, as *round, square, flat, narrow, low,* and others, have a correspondingly simple meaning, offering few possibilities for specialization. The various uses are scarcely more than fluctuations within the range of the word. The application of such adjectives to abstract referents, as *narrow mind, low cunning, flat notes,* may be transfers or nominations, and some of them are international, so that foreign influence may have contributed to the present meanings in English. A detailed study of their history would be welcome. Similar observations seem applicable to the adjectives denoting colours.

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[1]) Relative position in a series is a characteristic of an object, just as much as form and colour are (Head, Aphasia I 527).

With regard to these circumstances it is not unlikely that transfers are comparatively more rare in adjectives than in nouns: as pointed out above it is the occurrence of numerous characteristics in a referent that offers opportunities for sense-changes.

12.32. *Identity of Function, Ability, or Behaviour.* *Sharp* is used of the sight or eyes, 'acute, keen', and of persons, their intellect or understanding, 'acute, keen, discerning'. The quality of being penetrating is here transferred to the mental sphere. *Light* is similarly transferred and is used of persons, their mood, mind, heart, or countenance, 'merry, cheerful'. The idea of being lightly burdened is here shifted to the mental sphere, and apprehended as signifying lightly burdened in respect of sorrows or cares, and therefore merry and cheerful.

12.33. *Relational Shifts.* It is very common for an adjective to be attributed to a noun with which it is not logically compatible. We speak of the *highest bidder*, although, strictly, the bidder is not high, only his bid is. It is especially common with nomina agentis derived from verbs, the action of which is qualified by the attribute: *an early riser, late comers, first offenders, he is a hard student, a long resident, a slow walker, we were both fair runners, a probable winner of the Derby, a close observer, a wide traveller, a habitual liar.* Nouns which denote a person having a certain quality receive an attribute pertaining to the quality, not to the person: *a perfect stranger, a total stranger, you are a positive fool, her particular friend.* Adjectives of size are similarly used: *a great admirer of Tennyson, he was an enormous eater.* A noun of this kind may have two attributes, one referring to the person, the other to the action: *an ordinary secret sinner, a young and rapid writer* (cf. Jespersen, Grammar II. 12.12 sqq. with further instances).

The illogical use of adjectives has been explained by Feldkeller in the following manner. A strictly logical syntax would require a measure of thought and attention which during the rapid course of speech is not always available, since we mostly concentrate our attention on the content of what we are saying, and have little time to spare for the form, which is left to the care of lower centres. These may guarantee the correct use of the basic meanings — they do not always, as shown above — which as a rule are sufficiently firmly associated to the words for mistakes to be comparatively rare if special reasons do not intervene. But a correct syntax is not so easily learnt. The speaker has often to formulate afresh, and cannot content himself with reproducing his stock of schemes. Mistakes therefore easily creep in, which the listener in his turn perhaps does not notice, since he is too much occupied with the content of the speech to pay attention to the syntax. The words give him the main points of what is being said; everything else he combines for himself, educing relations on the basis of the fundaments communicated — the basic meanings. Speech has preferred this method because it leads to satisfactory results with less effort.

I only wish to add that we cannot class as mistakes all variations from strict logical correctness. Speech has always had a certain freedom in this respect, and it is speech habit, not logic, that should be taken as the criterion of correctness. I admit that the limits of correctness are sometimes obviously exceeded, and that they are difficult to define with precision. When a German says *ein möblierter Herr, eine reitende Artilleriekaserne*, and the like, protests are not unjustified (Further instances: Poutsma, Grammar II. 1.A 362, Bain I 193, Bøgholm, Bet. 134—135, Feldkeller 283, Nyrop IV 204, Wellander, Lagbundenhet 27, Paul, Prinz. 338, 343).

The question for me is whether these "transferred epithets" as Bain calls them, show a change of basic meaning, or merely a fluctuation. Some instances clearly show the latter only. In other cases we should perhaps assume a real transfer. Thus with *light*, when transferred from a burden to the person carrying the burden: *þeo men þet . . . goð untrussed lihte ase pilegrimes touward heouene* ('the men that go unburdened light as pilgrims toward heaven', Ancren Riwle, quoted from Stern, Swift 56).

Transfers of this kind may be made for aesthetic reasons, and are then to be classed as metaphors: *Mir wird's so wohl in deinem Arm, so frei, so hingegeben warm* (Goethe, Faust); *des Lichts gesellige Flamme* (Schiller; both quots. from Feldkeller). Similarly in English: *a restless pillow* (Bain).

CHAPTER XIII

CLASS VI. PERMUTATION

13.1. Theoretical Discussion.

13.11. *Analysis.* The factor disturbing the balance of the meaning-complex in this type of sense-change, as well as in the following, is a modification of the subjective apprehension of the referent. In the present class we have a shift in the point of view concerning a detail of a total situation, a detail of a phrase referent, the same word being retained to denote it.

The meaning of the English word *boon* was originally abstract, 'prayer, petition, request', but later the word acquired a concrete sense, 'thing asked for'. The shift is illustrated by sentences like *he yatte hir freli al hir bone* (1300), 'he gave her freely all her boon'. It is evident that the same total situation, the same *phrase* referent, may be adequately denoted by these words, whether *boon* is interpreted in its earlier, abstract, or in its later, concrete, sense. The *meaning* of the phrase changes, but the changed meaning is equally applicable to the referent. Other phrases with a similarly equivocal meaning are *to ask a boon, to have one's boon,* "taken without analysis" (NED). In all these cases, *one detail* of the *phrase referent* may be apprehended, primarily, as the content of a petition, or, secondarily, as the thing asked for. The phrase referent is not changed, only another characteristic (*Merkmal*) becomes the object of attention and apprehension; the phrase remains an adequate description of its referent.

Prayer and its object — the thing asked for — are correlative notions, and the thoughts of speaker and hearer are naturally carried forward from the prayer to its object, since the latter is the purpose and end in view (cf. Marty, Unt. 521, Jespersen, Language 175). When speaking of prayers being made or granted, the notion of the thing prayed for is therefore liable to form an element of the mental context. This makes for a very close association between the word with its primary meaning, on the one hand, and the correlative notion on the other hand.

By repetition the secondary notion, 'thing asked for', is so firmly associated with the original meaning, that the 'thing asked for' becomes a new characteristic (*Merkmal*) of the state of things described in phrases like *to ask a boon, to have one's boon,* etc. Under favourable circumstances, the subject's attention may be especially attracted to the new characteristic, which then becomes a central element, while the previously predominant elements of meaning are not attended to, and tend to disappear. *God... sende the thyn bone* (1385, Chaucer), 'God send thee what thou art praying for'.¹)

The analysis shows two points of essential importance. (1) One detail of the phrase referent may be apprehended in two different ways, while the phrase still remains an adequate description of its referent; the two notions being, in the extant circumstances, interchangeable. The detail in question serves as referent to one of the words in the phrase, and by the changed apprehension this word receives a changed meaning. (2) The primary and secondary apprehensions of the word referent are correlative notions, so that the latter is liable to form an element of the mental context of the former.

Another instance is the word *bead,* ME *bede,* originally signifying 'prayer' (to God, the Saints, etc.). In the Middle Ages, prayers were mainly Pater Noster and Ave Maria, which had to be said repeatedly, and which were counted by means of the balls of a rosary. If it was said of a man that *he was counting* (or *telling*) *his beads,* the phrase signified, at first, that 'he was counting his prayers'. But a speaker looking on and using the phrase, would in reality see the man counting the balls of his rosary, and that action would therefore be an element of the speaker's perceptual context. An association would thus be set up between the word *beads* and its primary meaning, on the one hand, and the idea of 'balls' on the other hand. It is also evident that whether the phrase in question is interpreted in one way or the other, it is an adequate description of the phrase referent (the action of the man), which may be apprehended in either way.

The first conclusion noted with regard to *boon* is applicable also to

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¹) By a further change which is perhaps an adequation — the process is not quite clearly discernible from the quotations in the NED — the meaning of the word shifts to 'favour, gift, thing freely or graciously bestowed . . . without the notion of asking'. — Note that *prayer, petition,* and *request* all acquire the sense 'thing asked for', but do not join in the further development of *boon.*

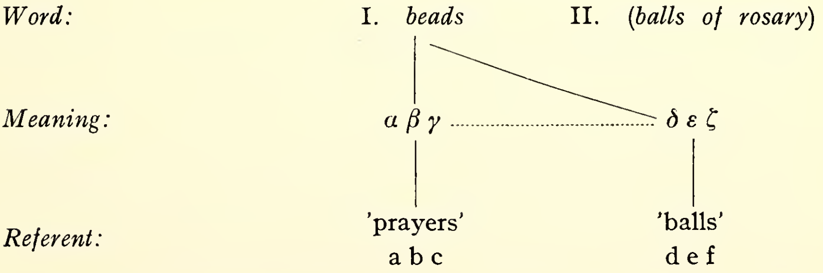
beads. The second conclusion has to be somewhat modified. 'Balls of a rosary' and 'prayers' are not correlative notions, but in the given circumstances the former is an element of the (perceptual) context accompanying the latter.

A shift in the apprehension of a complex referent, denoted by a phrase, will in most cases lead only to another word being employed; it might lead, for instance, to the phrase, *he is counting the balls of his rosary*. But in certain circumstances, as indicated above, the new apprehension of the word referent will, by repeated use, become associated to the word expressing the earlier apprehension of it, and will itself finally become a meaning of that name. A period of "preparation" thus seems necessary for a permutation.

The process is, by definition, unintentional. If a speaker is attending to his spreech he will not thus employ a word in a meaning that is not its own, and that is sometimes very different from its own.

We may formulate the process of change in the following manner. (1) A word is used in a phrase where a notion in some way connected with its meaning is liable to form an element of the context. (2) By frequent use the associated notion is associated also to the word. (3) The associated notion takes the place of the original meaning, in phrases of the type mentioned. (4) The word is used in the new, secondary, meaning, in phrases of other kinds, where the primary meaning is not possible (cf. Stöcklein's analysis, p. 14).

The process is too complicated to be adequately represented by a diagram, but the following scheme may perhaps serve to elucidate the facts.



We may assume that the element γ, belonging to the original meaning of *beads*, is 'prayers as being reckoned by the balls of a rosary'; while δ, belonging to the meaning of *balls of rosary*, is 'balls of rosary as being used to reckon prayers'. These two elements will naturally be closely associated — as indicated by the dotted line — so that we might even describe the notion of prayers as a characteristic of the 'balls of a rosary'. A person speaking of balls, in their aspect of being used to reckon prayers, that is to say, with the characteristic δ for the moment predominant, will easily have his mind carried on to the associated notion γ, and so to the word *beads*. By repetition the process may become habitual. This would not, however, by itself be sufficient to permit the employment of *beads* as the name of 'balls', if it were not for the "functional synonymy" described in the next paragraph.

The essential difference between this diagram and that given in 12.11, is the fact that in the latter we have a point of similarity in the two meanings involved (γ and γ_1), while in the present case there is no such similarity (γ and δ are not similar, only closely associated).

For the hearer, different alternatives might be imagined. He, too, might be looking at the actual counting of balls, apprehending it as such. Hearing the word *counting beads*, he would apply them to the counting of balls, and, if there had been a sufficient period of preparation, he would not feel any discrepancy. On the other hand, if the hearer is not seeing the referent, but is only being told of it, the process for him starts from the word *counting beads*, and I will not venture to say if the notion of balls could be evoked, to the exclusion of the notion of prayers, before the new association had already been brought about in other ways.

The basis of this class, as of the previous one, is to be found in the fact of specialization: the fact that referents have more than one characteristic, and that sometimes one, sometimes another of these characteristics is the object of attention (cf. 4.24). But there is an essential difference: in transfers, it is a case of *two* referents with a point of similarity (an identical characteristic), which serves as a pivot for the transfer, making it possible to apply the name of one referent to the other. In permutations and adequations, we have *one* referent, with several characteristics. Through a change of apprehension, the subject's attention is shifted from one characteristic to another, so that the latter becomes predominant (central), and the meaning of the name is thus changed. In permutations, the referent is complex — a phrase referent — and the change of apprehension concerns one detail of it; because this detail of the *phrase* referent constitutes by itself a *word* referent, the meaning of its name, of the relevant word, is changed. In the next class — adequation — we shall find yet a third type of change based on specialization.

If we make the assumption that the interchangeability or functional synonymy described in the next paragraph mediates the shift, we may formulate an alternative explanation of the psychic process. Referents which are not similar, but otherwise related can have no common element within the habitual range of their names; but the names may in certain circumstances be functional synonyms. The capability of functioning in a certain position in a phrase might be regarded as an element of their meaning for the moment. They have consequently a temporary common element of meaning, which might mediate the shift in the same way as the common element in a transfer. The diagram for a permutation would then be identical with that for a transfer, although the point of similarity would be of a peculiar nature, not permanently belonging to the semantic range.

This theory, too, explains all unintentional sense-changes (except those caused by substitutions, analogy, or shortening) with the help of two fundamental principles, but the permutations are bracketed with transfers as showing a shift mediated by a point of similarity in two referents, instead of being classed with adequations as illustrating a shift of attention from one characteristic of a referent to another. For my part, I consider the latter theory as more likely to be the true explanation.

Another point that may be mentioned in this connection is the distinction between sense-changes based on association of similarity and those based on association of contiguity, which appears in more than one classification, and which corresponds more or less to Wundt's distinction of shifts with changing and with constant predominant elements (Wundt II 531). The recurrence of this dichotomy would seem to indicate that several writers have felt it to be indicated by the actual circumstances; the question is how it should be explained.

The whole problem is more psychological than linguistic, and I have to leave it with these remarks.

13.12. *Conditions. The Equivocation.* One basic condition of permutation has already been indicated: a word must appear in such a context that a notion forming a constant, or at least a frequent, element of the context is associated with it.

But it is not enough that the secondary notion forms an element of the context of the word as used with its primary meaning. The two notions, the two meanings, must be interchangeable, or more precisely, *functional synonyms;* that is to say, either of the two *word-meanings* may be inserted into the *phrase*-meaning, and the latter still remain an adequate apprehension of the phrase referent. There are many notions associated with the notion of prayer, but in the phrase *he is telling his beads,* it is only the notion 'ball of rosary' that can be substituted for the notion of 'prayer' without making the phrase inapplicable to the phrase referent. It is this characteristic of the secondary notion ('ball of rosary') that enables it to take the place of the primary meaning ('prayer').

There must, consequently, be some sort of connection between the two notions that constitute the primary and secondary meanings of the word. The nature of this connection may vary within very wide limits. In the case of *boon,* it is a logical correlation; in the case of *beads* it is a fortuitous, temporary, connection, founded on the practice of using rosaries for counting prayers. Other permutations show other kinds of connections, as will be evident from the instances quoted below. The nature of the connection would perhaps repay a closer study.

Taking the matter of functional synonymy from the point of view of the word itself, we may say that the meaning of the word is *equivocal.* I distinguish equivocal, in this special sense, from *ambiguous,* which means that the phrase may refer to either of two different referents.[1])

The term equivocation should not be interpreted as signifying that a speaker vacillates between two meanings, still less that he is aware of an alternative. Permutations are unintentional. "Equivocal" must therefore be taken to mean that if the speaker turned his attention to the matter, either of the two possible meanings might emerge as the one really intended. This lack of precision, on the other hand, is possible owing to the fact that we are able to apprehend a total with clearness, without clearly apprehending every detail of it. (Cf. 4.17). The word, for instance *beads*, must be assumed to carry a sufficiently definite reference to that which is being counted, but since either way of apprehending this referent may function in building up the total meaning (the phrase meaning), we leave it at that. We know *what* the word means, and need not trouble to reflect *how* it means. When the "*Wasbestimmtheit*" is sufficiently definite, the "*Wiebestimmtheit*" may be left vague. The meaning of the single word is in some way "lost" in the meaning of the phrase. The precise nature of the psychic processes is still to be ascertained.

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[1]) I have previously (Stern, Swift 11 sqq.) employed the term *oscillating,* but since there is no movement forward and back, even in a metaphorical sense, I now prefer to speak of equivocation. Marty employs the term equivocation in a different way.

A further condition for permutations is, as already stated, a "period of preparation" during which phrases with the equivocal meaning occur with sufficient frequency to allow a firm association to be established between the word (with its primary meaning) and the notion that comes to form its secondary meaning. In order to be convincing, an explanation of a sense-change through permutation must be illustrated by phrases — quoted from texts — in which the relevant word is naturally and frequently employed. When the association in question has been established, the way is open for the final stage of the shift: the use of the word in the new meaning without equivocation, and without implication of the primary meaning.

My argumentation is throughout based on the assumption that if, in an unintentional change of meaning, the relation between the primary and the secondary meaning is not one of similarity, and the shift is not an adequation (see next chapter), then the shift cannot take place — *unintentionally* — except under the conditions indicated above for permutations: the two meanings must be apprehended as alternative characteristics of a given total (the phrase referent) and they must be functional synonyms in the given verbal context. *Intentionally* such a shift may, at least in many cases, be effected without the mediation of any specific context (cf. 11.7).

I assume, consequently, that the step from one meaning to the other, when they have no identical element, is too great to be effected unintentionally except when the circumstances are especially favourable. The nature of these circumstances has been described above. It follows, as a methodical rule, that we should always seek to ascertain in what verbal contexts the word in question was used prior to the emergence of the new meaning. These contexts will show whether we have really a permutation, or a shift of another kind.

Something must be said on the nature of the relation between the two referents involved in a permutation. In the case of *boon*, they are logical correlates; in the case of *beads*, the connection between them is extrinsic and temporary. In some instances the connection is still more "singular", if I may use Wundt's term, which is really applicable here; the two referents may have nothing to do with each other except in one single context. An instance in point is afforded by the word *premises*.

The premises originally meant 'the aforesaid'. It was often employed in announcements and official documents concerning the selling or letting of houses and lands, where at first all the details were enumerated: 'the house with outhouses, garden, land, tenements' etc.; further on in the document, the writer inserted instead *the premises*, 'the aforesaid'. The referent of *premises* is, on the one hand, 'previously mentioned', on the other hand, it is a 'house with outhouses, etc.' Either way of apprehending the referent may function in the given context: the two notions are functional synonyms. The secondary notion therefore becomes associated to the word *premises*, and finally supplants its earlier meaning.

The "step" from 'aforesaid' to 'house, lands, or tenements (abovesaid or before-mentioned)' is, from a logical point of view, very long, and this circumstance has led some writers to assume that shifts of this kind are due to misunderstanding on the part of readers or hearers. But there is no difference in kind, only one of degree, between the process of change in *boon* and that in *premises*, and there is consequently no reason for seeking a fresh explanation for the latter. Whatever the logical connection between the referents, there is always a very close factual and psychological connection, which allows us to regard the shift as a normal phase of linguistic development. We should therefore explain it by normal psychic processes, liable to take place in the mind of any person, ignorant or not. It is contrary to sound methodical rules to seek the explanation in misunderstanding, which is an abnormal factor (cf. 7.42).¹)

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¹) "Permutations by mistake" do sometimes occur, when a word for some reason is misunderstood, and grows habitual in the incorrect interpretation. *Derring-do* is a curious instance. The NED describes the process in the following way: "The two words *durring, dorryng*, daring, vbl. sb., from *durran dorren* to dare, and *don do*, pres. inf. of *do*, v., literally *daring to do*, which, by a chain of

13.13. *Causes.* With regard to the causes of permutation I assume that, generally speaking, they are to be sought in the striving to fulfil as adequately as possible the symbolic and communicative functions of speech, but it is difficult or even impossible to state the cause with any precision in the individual instances. The diagram in 13.11, together with the explanations given in connection with it, show only the possibility of permutation, not the causa movens. We have to ask why, for the speaker, the word *beads* offers itself and is made use of, although the referent spoken of is 'balls of rosary'.

In the case of *premises*, that word is chosen because it is so much shorter and more convenient than the enumeration of sundry details concerning the house etc. But in most cases, economy of effort cannot be adduced. Cf. the remarks on *beads* in 13.11. Similarly with regard to *boon*. Various factors might be suggested, but we cannot

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misunderstandings and errors, have come to be treated as a kind of substantive combination, taken to mean, Daring action or feats, "desperate courage". The words come incidentally in their ordinary sense and construction followed by the object 'that' (=what, that which) in Chaucer's Troylus; whence, in an imitative passage by Lydgate, in an absolute construction more liable to misunderstanding; Lydgate's *dorryng do* was misprinted in the 16th c. editions *derrynge do*, in which form it was picked up by Spenser and misconstrued as a subst. phrase, explained in the Glossary to the Sheph. Cal. as 'manhood and chevalrie'. Modern romantic writers, led by Sir W. Scott, have taken it from Spenser, printed it *derring-do*, and accentuated the erroneous use". Chaucer's lines in Troylus (V 837) run: *Troylus was neuere vn-to no wight . . . in no degre secounde, In dorryng don þat longeth to a knyght* (*i. e.*, in daring to do all that becomes a knight) . . . *His herte ay wiþ þe firste and wiþ þe beste Stod paregal, to dorre don that hym leste.* Lydgate writes of Troilus (Chron. Troy. II xvi): *And parygal, of manhode and of dede, he was to any þat I can of rede, In dorryng do, this noble worþy wyght, Ffor to fulfille þat longeþ to a knyȝt.*

Another instance is *warison*, originally 'possessions, wealth, reward', which was misunderstood by Sir W. Scott, probably, according to the NED, in a phrase from The Battle of Otterbourne: *Mynstrells, playe vp for your waryson.* Scott interpreted this as 'note of assault'. Byron and others have taken the word from Scott.

But the explanation "by mistake" should not be extended beyond very definite limits. Thus, I think it is not correct when the NED states, of the word *transpire*, originally 'to escape from secrecy to notice, to become known, to leak out', later on 'to occur, to happen, take place': "Evidently arising from misunderstanding such a sentence as *what had transpired during his absence he did not know*". The change is a permutation of the ordinary type, with equivocal phrases. If we assume it to be due to mistakes, then language is full of them, and most of the instances in this chapter should be so called.

fix on any of them as clearly responsible for the shift. Possibly we should assume an intermediate stage, in which a speaker, wishing to denote the referent 'gift', apprehends it as being asked for, and this subsidiary characteristic may evoke the word *boon*. Possibly we should assume, at least in some cases, that a given phrase is habitual in a specific situation, and is used even if one detail of the total is differently apprehended: that may be the case in *ask a boon, have one's boon*, and so on. And it is evidently the case with *premises*, and *to count one's beads*.

Some writers explain permutations as due to a difference between the meaning intended by the speaker and that comprehended by the hearer; thus Leumann, IF 45. Such a difference is of course possible, and no doubt occurs pretty frequently, but I do not think that we should make it the basis of a general explanation. The hearer, like the speaker, must be assumed to know his native language; permutations are too common to be due to misunderstandings. I have insisted above that to explain them in this way is an incorrect method, because they are a normal phase of linguistic development, and should therefore be explained by normal psychic processes.

For the hearer, the case is somewhat different. I refer to the remarks in 13.11, in connection with the diagram.

13.14. *Delimitation and Definition.* The previous argumentation is founded on the assumption that if the relation between the two referents involved in an unintentional sense-change is not one of similarity, as in transfers, and if the change is not an adequation, the process of change follows a peculiar course, as described. Consequently, I distinguish permutations from regular transfers by the nature of the relation between the two referents.

From adequations they are distinguished by involving the mediation of a specific context, in which one detail of a *phrase* referent is differently apprehended. The adequation is a matter of a single word.

Permutations merge into popular metaphors founded on other relations than similarity, and the criterion of intentional and unintentional is, as usual, frequently difficult to apply in the individual instances. It has been discussed at length in 11.13.

Permutations also merge into mere fluctuations; this distinction must be left to future research to determine more precisely.

These arguments result in the following definition of permutations:

permutations are unintentional sense-changes in which the subjective apprehension of a detail — denoted by a separate word — in a larger total changes, and the changed apprehension (the changed notion) is substituted for the previous meaning of the word.

13.15. *Classification.* As in the two preceding classes, I distinguish first the parts of speech. It is only of nouns that I have a sufficient number of instances to make further distinctions. The relations between the referents are of many different kinds, but not all are frequent enough to constitute the basis of a considerable number of changes. The instances given below represent only a selection of the possibilities. I have generally quoted one or more equivocal instances for each word, but I have not thought it necessary to give further quotations, since the words are all of them well-known, and may easily be looked up in the NED.

It will perhaps be possible at some future time to classify the permutations according to the relations between the two referents involved, but at present such a procedure would hardly lead to satisfactory results. I have therefore adopted a logical, and practical, arrangement.

Some of the shifts exemplified in this chapter could no doubt be effected intentionally, or through shortening, or analogy, and would then have to be classed accordingly. Some of my explanations are therefore tentative only, but when equivocal instances are found, from the period when the new meaning emerges, I have considered permutation as a probable, or at least a possible, explanation.

The arrangement below is, as far as possible, parallel to that of the preceding chapters.

The circumstance that a great number of sense-changes are mediated by equivocal phrases is so conspicuous that it has naturally attracted the attention of many previous writers. I may mention Hecht, Hey, Stöcklein, Collin. But no one has, as far as I know, attempted to ascertain the precise nature of the mediation, or the extent of the type and its connections with and differences from other types. My own theory and the definitions built on it are therefore a first attempt to solve the problem, and I offer my explanations with due reservations, since the material at my disposal is on many points inadequate. When, as is often the case, the same semantic result may be attained either by permutation, nomination, or shortening, I am sometimes unable to state with confidence what the actual development has been. Further research in these matters will perhaps compel us to draw the lines differently.

13.2. Nouns.

13.21. *Objects' Names (Concrete and Abstract).*

13.211. *Material for Object made from it.* The type is old. We find in OE. *iren* used for iron articles; cf. Latin *ferrum, aurum, aes*, etc., similarly applied. The process in these old instances cannot be ascertained. In other cases the change is later, and equivocal instances are found in the NED.

Brass 'a sepulchral tablet of brass': *Payd for fasting of the brass of the graves in the chaunsells vd.* (1613). Also, 'a musical instrument of brass': *as bras sownynge or a symbal tynkynge* (1382). This might be a sense-loan from Latin. Also, 'brass or copper coins': *Beere heor bras on þi Bac to Caleys to sylle* (1362). *Posses not golde, nor silver, nor brasse yn youre gerdels* (1526). — *Copper*, 'copper money': *If so, our Copper buyes no better treasure* (1588). — *Lead:* 'a bob or lump of lead suspended by a string to ascertain the depth of water': *I sall caste leede and loke þe space* (1440). Note the absence of the definite article, which shows *leede* to be equivocal in meaning. — *Mahogany*, 'a table, esp. a dining-table': *I had hoped . . . to have seen you three gentlemen. . . with your legs under the mahogany in my humble parlour* (1840). Perhaps a metaphor? — *Sacking* 'a material used for making sacks' > 'a piece of such material': *His Horses stand with Sackings instead of Cloaths* (1707). — *Sackcloth*, 'garments of sackcloth': *he sits him down in sackcloathes, his hands and eyes reared to heauen* (1594).

With regard to the use of *brass* as denoting articles made of brass, the NED says that it is elliptical. This may very well be the true explanation in some cases, just as *beaver*, for a beaver hat, is probably elliptical, if the dates in the NED are reliable. But in the instances quoted above the presence of equivocal phrases shows that permutation is a possible explanation.

In other cases, the use of a material for an object is clearly metaphorical, as when a sword is termed in Beowulf *dryhtlic iren* 'a splendid iron', or when a ME text speaks of *Laurear of martirs, foundid on* *holynes* (1430), or when a diploma, in U. S. university slang is called a *sheepskin*[1]) (Cf. 11.73).

13.212. *Receptacle for Content. Barrel* is used for 'the contents of a barrel': *For they no haveth joye . . . Bote in the gutte, and the barell* (1300). *A barrel of water* is equivocal, and its meaning may be specialized either on the receptacle or on its content. — *A tub* is often used for the contents of a tub: 'the water for bathing': *He was in his tub* (1861). *An aversion for the Saturday tub* (1849). *To take a cold tub.* — *Box* may be 'the money contained in such a box (*i. e.*, containing public funds), a fund for a particular purpose': *He schal haue of þe comune box xiijd* (1389). — *Sack* sometimes denotes the contents of a sack, or the amount usually contained in a sack: *LI saks & X peres de leine* (1314). *For iij sak lyme to þe same mason . . . vj d.* (1427). And similarly *barrow, basin, beaker, bowl, glass*, etc. — A *wardrobe* was first 'a room in which wearing apparel was kept, a dressing-room', later,' a person's stock of wearing apparel': *Jupiter hath in his warderobe bothe garmentes of joye and of sorowe* (1387—88). — *Post* was originally 'one who travels express with letters, messages, etc.; esp. on a fixed route; a courier, a postrider, a letter-carrier, a post-man', and also 'a vehicle used in the conveyance of the mails; a mail-coach or -cart; a packetboat'. From these meanings arose a new sense: 'a single dispatch of letters (and other postal matter) from or to a place; also concretely, the letters, etc., collectively, as dispatched or conveyed, with that which carries them, the mail'. The NED points out that this sense is often blended with the two preceding, as in *The post being just going, I can say no more* (1675), *by the last night's post* (1683), *upon the coming in of the post* (1711). Here the word *post*, originally signifying the conveyance or the person carrying the mails, would easily come to be associated with the thought of the mails themselves, these being the matter of interest both for writer and reader.

Similar shifts may be made metaphorically for stylistic purposes, as in *the power of the purse* (cf. Nyrop IV 198).

13.213. *Part or Constituent Detail for the Whole, and Vice Versa.*

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[1]) With regard to the instances quoted by Nyrop IV 201 and Carnoy 179, it is often doubtful which of the three alternative explanations is the right one. The following, however, appears to belong to the present group: *De jeunes filles . . . dans leurs grisettes*, the last word signifying originally a cheap grey stuff, and later on, a dress made from this stuff.

Pars pro toto is a frequent heading in semantic classification, but is not a uniform type; the same result can be attained in more than one way.

Hand 'a person employed in any manual work, a workman or workwoman'. *Those hands that must be employed in their building* (1657). *Two hundred manufacturers, which would employ many hands* (1721). *Come, gentlemen, all hands to work!* (1703). *Additions by the hand that retouched the writing* (1893). — *Blade* is often put for sword, as being the essential part of the weapon: *A long surcote of pers vp on he hade, And by his syde he baar a rusty blade* (1386, Chaucer). A shift of this kind may also be metaphorical. — *Hearse* 'a carriage or car constructed for carrying the coffin at a funeral', is originally the superstructure of such a vehicle: 'a frame-work of wood used to support the pall over the body at funerals'. It fitted on to the parish bier, and was probably adapted to carry lighted tapers. It is easily conceivable that in speaking of the *hearse*, in the earlier sense, the mind was carried on to the thought of the whole vehicle.

F. *bureau* 'writing-table' (originally the piece of cloth covering the top of the table) is also taken to mean the whole office in which the table stands. "Quand on est à son bureau, on est aussi, par nécessité, dans son cabinet de travail" (Nyrop IV 198. Many of the instances adduced by Nyrop seem to be metaphorical, as I take that term. Cf. also *estaminet* and *toilette*. Carnoy 158, Weekley, Words 73, and Bain I 191, with instances of so-called synecdoche).

Instances of totum pro parte are doubtful; they are more often adequations. It is mostly a question of one particular aspect of the total referent, which becomes more or less habitual, and finally emerges as an independent meaning of the word. A *dungeon* is originally a strong tower, the central tower of a fortress. Since such towers were generally furnished with cellars used as prisons, *to put a man in the dungeon* would mean putting him in prison, and this meaning of dungeon gradually became the most common one; in the sense 'tower' the spelling *donjon* is now mostly used. *Tower* is also employed of such structures used 'as prisons' (NED): *Se biscop Rannulf . . . ut of þam ture on Lunden nihtes oðbærst* (1122). The names of *trees* are used to denote the wood or the leaves or other parts of them: *Do þer to sage and persely ȝoyng* (1420: the leaves of sages and parsley). *Smal-coale. . . is made of Sallow, Willow, Alder, Hasell, and the like* (1646: the wood of these trees).

I am uncertain whether such instances should be classed as permutations or adequations (cf. 14.83). A detailed knowledge of their history would be necessary to decide the question.

13.214. *Symbol for Thing Symbolized.* This shift is often metaphorical (11.72). It seems to be a permutation mainly when the word is concrete.

A *bush* is 'a branch or bunch of ivy hung up as a vintner's sign; the sign-board of a tavern', also 'the tavern itself': *Twenty to one you find him at the bush* (1625. Cf. Nyrop IV 196). — *Brand* is 'trade-mark', but also 'a particular sort or class of goods': *The ale was of a superior brand* (1854).

Here we may perhaps class *wedlock*, originally 'the marriage vow or obligation'. Chiefly in phrases, *to hold, keep wedlock* 'to be faithful in marriage', *to break* (*one's*) *wedlock* 'to commit adultery'. *And tohh wass heh & soþ weddlac Haldenn onn eȝȝþer hallfe* (1200). *Ȝif ha hare wedlac laheliche halden* (c. 1320). In such phrases and combinations the word could be interpreted as meaning 'the condition of being married, marriage as a state of life or as an institution, matrimonial relationship'.

13.215. *Instrument for Action.* I have only one good instance. *Ballot* is 'a voting paper', later 'the act of voting': *A triall of theyr sentences by Ballot* (1549).

13.216. *Instrument for Product.* *Whistle,* 'instrument' > 'sound of whistle': *Whan Marcuryis whystyl hym dede streyne To hys deed slepe* (1447). *The sound of pastoral reed . . . Or whistle from the Lodge* (1634). *Lucky that Klepper knows my whistle, and follows me as truly as a hound* (1823).

The NED suggests that the sense 'sound of whistle' is a new formation from the verb, but the equivocal instances adduced show that permutation is also possible. Cf. a similar development in F. *sifflet*, according to Nyrop (IV 206, with comments), and E. *pipe*, at first, in OE, a wind instrument, later (earliest inst. 1580) 'the voice, esp. as used in singing, the song or note of a bird, etc.' The following instances seem to be equivocal: *Where vnder a sweete Arbour . . . be byrdes recording theyr sweete notes, hee also strayned his olde pype* (1580). *A straunge orator straining his pipes, to perswade straunge people* (1581). *Thy small pipe Is as the maidens organ, shrill, and sound* (1601).

13.217. *Organ for Capability of Perception or Intellection.* *Ear* is used in sing. and plur. for 'the sense of hearing, auditory perception'. *To come to the ear(s of:* to come to a person's knowledge by hearing (NED). *It com the kinge to ere* (1297). *The tithandis . . . Com to the cliffurdis ere* (1375). — *Eye* is used in sing. and plur. for 'the action or function of the eyes, the sense of seeing'. Chiefly in phrases, (*To have*) *before one's eyes*, lit. and fig., *To believe one's* (*own*) *eyes*, *To catch, fix, strike, take the eye* (NED). *He litlede him seluen to-foren mannes eiȝen* (a. 1200). *Þat for a tym desceyuiþ. . . þe ȝee, but þis biggiþ þe vnderstonding perpetual* (1400). — *Nose* is similarly used of the sense of smell: *Quare-of þe breth as of bawme blawis in oure noose* (1400—50). *Was dulcet & swete to y^e mouth. . . & sauoured wele to the nose* (1526). — The *palate* is "popularly considered as the seat of taste", and the word was therefore transferred to the sense of taste: *Breed to a sore mouth is sharpe & harde, whiche to a hole palate is swete & pleasaunt* (1526). *Let their pallats Be season'd with such Viands* (1596, Shakespeare). *Tooth* is similarly used, 'referring to eating, esp. to the sense of taste': *I wol kepe it for youre owene tooth* (1386, Chaucer). The NED explains this as figurative, which may be right; a similar explanation is not impossible for the other instances quoted above. Foreign influence is also possible. — *Brain* is used for 'intellectual power, intellect': *That is nought for lake of braine* (1393).

Object for Perception. According to Wundt it is a general rule that perceptions are named from exterior objects or states connected with them. This is due to the fact that no perception is independent of such objects or states. We do not perceive blue colour, or a note, as pure perception, but as a quality or an activity of some object outside us. Most modern colour names that are not arbitrary (as *Prussian blue*), are the names of objects or materials: *orange, terracotta, indigo.* (Early names have been investigated by Bechtel, with similar conclusions. Cf. also Falk 14, Wundt II 556).

I have only one English instance that seems to belong here. *Sight* is originally, in OE, 'a thing seen, esp. of a striking or remarkable nature, a spectacle'. In early ME, it comes to be used also of 'the perception or apprehension of something by means of the eyes; the presentation of a thing to the sense of vision'. Equivocal instances are: *ȝe schulen hebben . . . þe brihte sihðe of Godes nebscheft* (1225). *Þis leuedi duted noght þe sight O þis angel þat was sa bright* (1300). *Wel hath Fortune y-turned thee the dys, That hast the sighte of hire, and I thabsence*

(1386). *(He) was as deed only by the syghte of the sayde dragon* (1491).[1])

13.218. *Articles of Dress or Equipment for Person.* The earliest instances of this type are some names of military flags, weapons, and musical instruments, used to denote the person carrying or using them (see A. Smith, who gives a full material with copious quotations). The type seems to be an imitation of French usage in military language (see Nyrop IV 195, with some early instances), and the practice afterwards spread to other articles of dress, tools, etc. From the 14th c. we have *standard* 'standard-bearer'. The NED has no early equivocal instance, but cf.: *Euery man mounted, and the baners and standers folowed this new made knyght* (1523). NED interprets this literally, but evidently the secondary meaning is also possible, as well as another secondary meaning, 'company of cavalry'. From the 15th c. we have *helm: The kyng of Northgalys with eyght score helmes* (1470-85), and *trumpet: The trompettis vppon the wallis went* (a1450). Cf. the earlier Latin quot.: *Dati a le Trumpet de dono domini ibidem* . . . (1390—91). *The Duke of Brunswicke sendeth a trompet to Duke Moris and desyreth a communication* (1560).

In the 16th c. the practice grows still more frequent. We have instances of *bow, corslet; drum, fife, rebeck, clavicord, shawm, sackbut, bag-pipe; banner, ensign, guidon, pensel,* all denoting the persons using them; the last four also denote bodies of men. This seems to be an international practice, cf. German *Fähnlein, Fahne,* Swed. *fana, fänika.* The NED does not give early equivocal instances of all these words, but the following seem to be worth quoting:

The lord lieutenant . . . sent a drum vnto Monsieur Doisell (1577—87). *There was among these a thirtie bowes with a bagpipe* (1577). *Esquires . . . able at the Musters to present a Launce or light horse for the Prince's seruice* (1602). *To Doctre Lee's shawmes and shagboshcs* (*sackbuts*) *that playt before my Lorde of Solfolke* . . . (1539). *There sat dame Musyke, with all her mynstrasy; Rebeckes, clarycordes, eche in theyr degre, Dyd sytte aboute theyr ladyes mageste* (1509). *All the companyons, to the nombre*

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[1]) Wundt (II 561) classes along with this group also "die Uebertragung von Benennungen äusserer Eindrücke auf subjektive Gemütszustände und auf die psychischen Kräfte von denen diese abhängig gedacht werden . . . So kann *angustia* sowohl die räumliche Enge wie das Gefühl der Not . . . bedeuten". This is, in my classification, either a metaphor or a transfer, probably the former.

of xii. hundred pensels, And they were right hardy and valyant knightes (1523). *For one monthes wages . . . for iiij drummes and two fyfes, every at xl. s.* (1548). *Item, for Thomas Evans, Rebeke, wages xx s.* (1540).

In the 16th c. names of non-military articles were similarly used; there are instances of *Chrisom, blue-coat, red-coat, coxcomb, red-hat, home-spun, rochet, clout-shoe;* and later on the usage spreads.

As pointed out above (11.71), shifts of this kind may be metaphors; the earliest instances may be borrowings from the French, and later instances in English may be formed analogically. Shortening is perhaps not altogether out of the question in some cases. And finally there is the possibility of permutation, proved by the equivocal instances. In some of the popular formations, permutation seems to be indicated by the nature of the phrases in which the words are used, for instance: *I cannot work with a petticoat in the room.* The matter is far from clear, and a detailed study would be welcome (cf. Bain I 191, Carnoy 261).

With regard to the modern use of *boots* 'boy cleaning the boots', Jespersen (Grammar II 5. 723) assumes that the secondary meaning arose from the habit of calling *boots!* when people wanted their boots cleaned; the call was apprehended as a call for the boy or man who did the work, and so became his name. If this is correct, the change is a permutation.

13.219. *Name from Concomitant Circumstances.* Since permutations go by factual connections, not by logical relations, they cannot all be fitted into a logical scheme like that represented by the groups in the present chapter. I am therefore obliged to add a section to include various instances in which we can only say that the naming is based on concomitant circumstances; the exact connection being of various kinds.

Board is 'table used for meals' and changes to 'food served at table'. Equivocal instances are: *Mi bord is maked. Cumeð to borde* (1200). *Hwon gredie hundes stondeð biuoren þe borde* (1225). *Heo seten to borde* (1275). The change is completed in: *To pay for bord* (1386). — *Hint* is originally 'occasion, opportunity', now 'a slight indication intended to be caught by the intelligent, a suggestion or implication conveyed in an indirect or covert manner': *Vpon this hint I spake* (1604). — *Knot* is the speed of a vessel measured by paying out a line, furnished with knots at every 50 feet; the number of knots running out in half a minute was equal to the number of nautical miles that the ship sailed in an hour. The speed was therefore indicated by saying that a ship was sailing five *knots*. Since this speed was equal to five nautical miles per hour, *knot* acquired the meaning of a unit of measurement, primarily the divisions of the log line. — *Quarter* 'region, district, place, locality' is originally the region lying about or under one of the four principal points of the compass or divisions of the horizon, and still earlier one of these points or divisions themselves. *Vpon Elam I wil bringe the foure wyndes from y^e^ foure quarters of heauen* (1535, Coverdale); here *quarters* may be interpreted as signifying 'the points of the compass' or 'the regions lying in that direction'. The latter meaning then was subjected to adequation, during which the connection with the points of the compass disappeared, and the sense 'region, district' became free from such implications.

Score is originally 'a notch cut in a stick or tally, used to mark numbers in keeping accounts'; it was used equivocally in sentences where it might denote the tally itself: *All that Launfal had borwyth before Gyfre, be tayle and be score, Yald hyt well and fyne* (1460). *Yf þo koke wolde say þat were more, þat is þo cause þat he hase it in skore* (1460). The word further acquires the sense of 'a record or account kept by means of tallies': *þe fendes redy my rolle to rede, þe countretayle* (the opposite half of a tally) *to shewe, þe score* (1421). Out of this sense there further develops another: 'the sum recorded to a customer's debit in a 'score': the amount of an innkeeper's bill or reckoning, etc.': *After he scores, he neuer payes the score* (1601). *Or how to pay thy hinds and clear all scores* (1648). *When in the morning Matt ask'd for the score, John kindly had paid it the evening before* (1701). NED also gives the phrases *to clear, pay, quit a score*, and others.

Fr. *danger* is from *dominiarium*, from *dominus*, and means originally 'domination, power': *Metons nos hors de lor dangier* (Wace, Roman de Rou). This sense did not long survive the Renaissance. The transition to the modern sense occurred in phrases like the following: *Les cardinaux, qui se veoient au danger des Romains* (Froissart): if the cardinals were *au danger* 'in the power of' the Romans, they might also be in danger from them. Cf. the phrase *tirer quelqu'un du danger de mort* (Nyrop IV 77).

12.22. *Nomina Actionis.*

13.221. *Action for Product, Result, or Object.* A very common type. Cf. Nyrop IV 221 sqq., Collin, Ata 54 sqq.

Batch 'the process of baking' > 'the quantity of bread produced at one baking': *He shall trulye delyver into the bredehouse . . . the whole numbyr of his bache* (1461). Similarly Swed. *bak: vi ha tre bak att göra i dag* (SAOB). — *Lending* 'act of lending' > 'something lent': *Thou lost a good wife, thou lost a trew friend, ha? Two of the rarest lendings of the heauens* (1602). — *Schooling* 'the maintenance of a child at school, considered as involving expense; hence, cost of school education': *Find my Children Apparel and their Schooling* (1610). *She could not afford to pay for her little lass's schooling* (1802). — *Leading* 'the act of leading' > 'that which is led': *Thai that war of his leding . . . war all ded* (1375). *He hadde in his ledyng* (Vulgate: *in comitatu*) *chares, and rydynge men* (1382). *Al the folk of hir leding . . . never wist what was fleing* (1400). — *Cast* 'act of casting or throwing' > 'the distance which anything can be thrown': *Pilers as hiȝ as a stones cast* (1387). Also 'a throw or stroke of fortune; hence, fortune, chance, opportunity': *Him suld þan reu his cast þat þis folk was fra him past* (1300). *Glaid of this cast, seand thair tyme maste gane* (1513). — *Prayer* 'supplication' > 'the matter of a petition, the thing prayed for or entreated': *Thus hath he graunted my prayere* (c1400). Similarly *petition* and *request*. Cf. *boon*, 13.11. — *Lift* 'act of lifting' > 'the thing lifted': *Off gold well twenty mennys lyffte* (13 . .) — *Damage* is 'injury, harm' and also (now always in the plural) 'the sum of money to be paid in compensation for loss or injury sustained'; the word could be taken both ways in a phrase like *to pay damage. The party condemnyd . . . schold euer be awardyd to pay costys and al other dammage cumyng to hys aduersary by the reson of the vniust sute and vexatyon* (1538). — *Business* 'state or quality of being busy' > 'that about which one is busy': *Me to serue is al his besynesse* (1392). *He that wele & dyligently vnderstondith to his bysenesse* (1477).¹)

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¹) The type is analysed at length by Leumann (IF 45, 110). The use of *Schreiben* for 'Geschriebenes, Brief' is ascribed to phrases like *ich bin mit dem Schreiben* (der Tätigkeit des Schreibens) zu Ende, "auf die der andere aus der Situation heraus *schreiben* als 'Brief' deuten und also sagen konnte: *dann kann ich das Schreiben gleich mitnehmen.* Man ruft die Kinder *kommt zum essen*, sie verstehen *zum Essen* (wie *zur Milch*) und sagen etwa, *das Essen ist noch zu heiss.*" I have already stated that I do not believe in the general validity of the theory that the change is due to a difference of apprehension between speaker and hearer. Leumann commits the mistake of not adducing historical instances; he constructs phrases to explain

13.222. *Action for Instrument or Means of Action.* *Aid* 'action of aiding' > 'something by which assistance is given, a means or material source of help': *Exercise may deserve to be taken as a common Aid to Physick* (1711). *Neyther lakt I ayde in any wicked dede* (1559). — *Fare* 'a going, journeying, course' > 'a passage or excursion for which a price is paid', and hence 'cost of conveyance, passage money': *Þare suld nane pay mare þan foure pennys for þare fare* (1425). *He payde his fare and wente aborde* (1535). *Most willingly I'le pay thereof the fare* (1620). Cf. German *Fuhr* 'das Fahren' > 'a cart': *Eine Fuhr Heu* 'a cart of hay' (Stöcklein 58). Cf. Swed. *farkost*, Collin, Ata 88. *Call* is 'a particular cry or sound used to attract or decoy birds, etc.', and also 'a small instrument or whistle to attract birds, etc. by imitating their note': *The deer came . . . as if they had been used to a keepers call* (1596).

13.223. *Action for Agent.* *Help* 'the action of helping' > 'any thing or person that affords help': *Crist is eaðmodegra help and ofermodigra fiell* (893). — *Aid* 'action of aiding' > 'person aiding': *The Lord that built the Earth and Skies is my perpetual Aid* (1738). — *Fare* 'a going, journeying, etc.' > 'a number of persons prepared for a journey, a troop, multitude': *Brien bonnede his fare* (=prepared his journey = prepared his companions and himself, 1205). — *Failure* 'the fact of failing to effect one's purpose' > 'a thing or person that proves unsuccessful': *This attack was a failure also* (1837). *If you elect me and I should turn out a failure* (1865). Similarly *success*. The last two may be metaphorical, cf. 11.612 c.

Latin *senatus* means not only the session, but also the assembly. Similarly *consilium* is sometimes used of a single person: Ovid. Trist. 4. 2. 32: *ille hortator pugnae consiliumque fuit.* *Statio* originally means the 'standing', but also the person standing, the sentinel, as well as the place where he is posted (Stöcklein 58 sqq.).

For French instances, see Nyrop IV 190, 218, Carnoy 183. Cf. also Collin, Ata 77 sqq. for Swed. *betjäning, biträde, regering, styng,* and others.

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a change. That is a method not to be encouraged, except when absolutely necessary for lack of historical material.

Leumann also gives some Latin instances. *Fatum* was originally 'that which is said or predicted'. He quotes equivocal instances from Cicero fat. 5: *si Daphitae fatum fuit ex equo cadere* "wenn es ihm geweissagt war", "wenn ihm ein Orakelspruch war", "wenn es ihm Schicksal war", ib. 28 *si fatum tibi est ex hoc morbo convalescere;* ib. 30. *si . . . ita fatum erit: nascetur Oedipus Laio.*

13.224. *Action for Place of Action. Fare* 'a going, journeying' > 'a road, track, esp. the track of a hare or rabbit': *Not a Hare Can be started from his fare* (1610). — *Crossing* is, secondarily, 'place of crossing': *Statues . . . in the crossing of streets* (1695). *The ceiling is garnished, at the crossing and combining of the arches, with . . .*(1828).—

The type is very common, and also very old. Lat. *accessus* is shifted from 'the action of entering' to 'the place of entrance' in phrases like *accessus est ad domum, accessu prohibere* (Hey, ALL 9). *Exitus* and *aditus* have passed through a similar development, as well as F. *entréee, issue, sortie,* with equivocal instances as *à la sortie de la messe, à l'entrée du bain.* (Cf. Nyrop IV 223, Carnoy 180 sqq., Collin, Ata 112, 114, Stöcklein 58 sqq., Leumann, IF 45, 111—112).

13.23. *Names of Qualities in Various Uses.* The names of qualities are employed to denote persons or objects possessing these qualities. The shift is often metaphorical (cf. 11. 612 c) but apparently in some cases may also be explained as a permutation. (See for the whole problem, Hatzfeld, Objektivierung).

The word *quality* is used, concretely and collectively, for 'people of good social position' (now archaic, vulgar or dialectal): *Walk Bareheaded to his Master's Daughter, in imitation of Quality* (1693). Another concrete meaning is 'title, description, character, capacity': *Man agh to telle hir qualite, sib or freind or quat sco be* (a1300).

Analogy with foreign patterns may be suspected in some cases, since the "collective" type is old and international. Cf. Latin *juventus,* F. *jeunesse,* Germ. *Jugend,* E. *youth* (See Carnoy 188).

The use of such words to denote single individuals seems less common. *Youth* 'young people' is Old English, but the sense 'young man' is later: *Bi ðat time ðat he was ȝuð, Wið faiȝered and strengthe kuð* (1250).

The names of qualities are also used to denote objects having that quality. *Length* is 'a long stretch or extent': *Large lengths of seas and shores Betweene my father, and my mother lay* (1595). Cf. Nyrop IV 224 sqq.

Consideration 'the taking into account of anything as a motive or reason' > 'something given in payment, a reward, remuneration, compensation': *We gave them copper in consideration* (sc. of services, etc. 1624).

13.24. *Names of Persons for Products,* etc. We find in OE: *seo boc þat is nemned Orosius.* If the name of the author is written on the cover or title-page of the book, it is natural to use it, as we use the name labelled on any other object to denote it. I believe that this applies to *a Milton, a Shakespeare* 'a book or play by . . . ', and also to a picture, signed by the painter's name: *a Rembrandt, a Romney.* Equivocal instances are sometimes found: *They have Moses and the Prophets* (Bain I 190). In the same way wines are called by their labels: *Beaune, Cliquot, Johannisberger,* etc. Instances like these are mostly classed as shortenings, and it is probable that shortening is the correct explanation in many cases, analogy or metaphor in others, but the possibility of a permutation should also be taken into consideration (cf. Wellander, Studien II 115, Stöcklein 69, Carnoy 173 sqq., and 10.431 above).

13.251. *Place-name for Action or Event. Church* 'a church building' > 'divine service': esp. in phrases like *to attend church, go to church, be at* (*in*) *church, out of church, after church,* etc. (see NED church sb. 11): *Þu gast to chirche* (1175). Similarly *chapel, college, school,* and others. This use is marked by the absence of the definite article. German *Kirche* shows a similar development (cf. Leumann IF 45, 110, Stöcklein 60 quoting also *Schule, Tisch,* and others. Efvergren 7 sqq.).

The origin of the habit of using place-names for events is not clear. Wellander (Studien II 116) assumes shortening, and that explanation seems likely, at least in some cases. Cf. 11.332. I have no good equivocal instances, and permutation therefore should perhaps not be assumed as a possible explanation.

Field 'open land, plain' acquires the special sense of 'battle-field', which > 'battle, victory'; cf. the phrases *to fight, give, lose, make, win the* (*a*) *field, to get, have the field. The falde was hys & Arthourez* (c1400). *Of the fynd the maystry to haue, Of hym to wyn the fyld . . . Of hyme he wane the fyld þat day* (c1435. Cf. Efvergren 8).

French *grève* has a complicated history. Out-of-work men used to assemble in the *Place de Grève* in Paris in order to offer themselves for employment. *Faire Grève* 'to walk about the Place de Grève' thus also meant 'to look for work'. This is a permutation. Through adequation, the latter element of meaning became predominant, to the exclusion of the association with the place, and *grève* came to mean 'disemployment'. In the 19th century, the word came to be used of disemployment due to refusal to work, *i. e.,* striking. In this special meaning, the word was dissociated from *faire,* and could be employed with any suitable verb: *se mettre en grève, déclarer une grève,* etc. (Cf. Nyrop, Das Leben der Wörter, quoted by K. O. Erdmann 24). The first permutation in this series of changes may be said to be conditioned by the ability of *faire* to take on two different meanings. In the first stage, *faire* means 'to walk about', in the second, 'to do a thing', cf. *faire un métier, faire le commerce.* Possibly the association with the place should be assumed to disappear as the latter interpretation came to the front.

Efvergren (42 sqq.) has an interesting explanation for the use of place-names to denote products of the place. He takes as a typical instance *Tars,* originally a place-name, *Tharsia,* a country adjoining Cathay. The name also denoted a rich stuff, *cloth of Tars. Of* is used not only to indicate a place of origin, but also the material out of which something is made, as in *howves of selk* (Piers Plowm.). Consequently the locution *tapytez of tars* (Gawain 858), as it stands, could be interpreted as showing either the origin or the material of the *tapytez.* The shift has been completed in *dubbed in a dublet of a dere tars* (Gawain 571). Among the earliest place-names to be used of products in English were the following, quoted by Efvergren 46: *of tuly* (sc. Toulouse) *and tars* (1360), *wyn of Oseye* (1362), *wyn of gascoyne* (1362), *raysons of Coraunte* (1390), *a gown clothe of mostyrdewyk* (1400). I do not think that the names of wines are likely to have arisen in this way, since *of* could scarcely be apprehended as denoting the material out of which the wine was manufactured, but with regard to other words the explanation appears plausible.

13.252. *Place-name for Inhabitants or Frequenters.* We use *the City* for its inhabitants, *the whole house* for those that dwell in it, *the gallery, the pit, the boxes,* for those sitting there during a performance. It is an old type, and the explanation is often uncertain. It seems that metaphor is possible, but the presence of equivocal instances shows that permutations leading to the same result may also occur. If the development of the three last words is due to permutation, equivocal instances might have been of the type: *applause from the pit, to play to the gallery,* cf. NED gallery sb. 4 b: *He addressed himself principally to his friends on his right and left, and in so inaudible a voice that his remarks did not reach the gallery* (1817), which the NED interprets as signifying those sitting in the public gallery of the hall in question.

For *House* 'legislative assembly', originally the building or room where they assemble, the NED has several equivocal instances: *The commons of the lower house, not forgettyng their olde grudge* (1548). *Sir Edward Coke is of the house* (1624). *To sit with the Peers in the higher House* (1635). Cf. *the Bar, the Bench, the Cabinet, the School: All þe scole on him can wonder* (1300); and see Efvergren 10 sqq.

Nyrop (IV 198) quotes *bureau* and *auditoire:* "Pour les mots de ce genre les deux sens se présentent simultanément à l'esprit; c'est le contexte qui doit décider si par *auditoire* il faut entendre ou un local ou une réunion d'hommes". He further adduces *un nid babillard, un parterre bienviellant, la ville s'est révoltée, toute la maison est en émoi,* and *conclave,* which is 'a room shut up with lock and key' > 'the room where the Cardinals shut themselves up to elect a Pope', > 'the assembly of the Cardinals for electing a Pope'. F. *cour,* from Latin *cohortem,* was first a country house, then a domain belonging to the king, then the residence of the king and his attendants, and finally 'the persons attending upon the king' (Cf. Carnoy 160, 260).

Wellander (Studien II 116) quotes *während dieser Zeit ordnete Petersburg die allgemeine Mobilmachung an.* Similarly we use *Downing Street, Quay d'Orsay, Wilhelmstrasse* for the governments or foreign departments of the respective countries. I have explained the change of meaning of *Moneta* as a permutation (see 11.14), and the same explanation seems applicable in many cases to instances like the above — always with regard to new formations; later instances may be influenced by earlier patterns. If a man speaks of *going to* or *coming from Downing Street,* the meaning of the place-name is equivocal; the secondary meaning is at first determined by the context — the speaker's interests or business, as known to the hearer — and later it may become habitual, since it is the most important one in most connections. A student will speak of his studies at *Oxford,* meaning the University, and the latter meaning of the word has become habitual among speakers whose interests in Oxford are with the University.

13.26. *Mental State for Object or Person causing it.* These shifts are very common (see Hatzfeld, Objektivierung). It is not unlikely that some of them are to be explained as metaphors, but in many cases there are equivocal instances that point to permutation. Among them are the following.

Care 'charge, oversight with a view to protection, preservation, or guidance' > 'an object or matter of care, concern, or solicitude': *Gath-*

ered the Princes . . . To taken counsell of their common cares (1590). *The main care of any creature is self-preservation* (1634). Cf. Bøgholm 129. — *Concern* 'interest, solicitous regard, solicitude, anxiety' > 'a matter that concerns': *'Tis all mankind's concern that he should live* (1700). *Which are the common and greatest concern of all Christians* (1732). — *Delight* 'the fact or condition of being delighted; pleasure, joy, or gratification felt in a high degree' > 'anything in which one takes delight': *It es a place of delytez* (1400). *Why, Sir Iohn, do you thinke . . . that euer the deuill could haue made you our delight?* (1598). — *Desire* 'the fact or condition of desiring' > 'an object of desire': *Hee hoped to haue there of his hertes desyres* (1340—70). *He sawe that he ne myght nought acheuen hys desyre* (1413). — *Hate* > 'the object of hatred': poetical, according to the NED: *My onely Loue sprung from my onely hate* (1592). — *Pride* > 'that of which any one is proud': *My seyntuarie, the pryde of ȝour empyre, and desyrable thing of ȝour eyen* (1382). *Her þe pryd of waterford felle, her all hys myght went to noght* (1425). — *Scandal* > 'a person whose conduct is a gross disgrace to his class, country, position, or the like': *Duncombe, a drunken M. A. of St. Marie Hall, a scandall to his profession* (1683). — *Trouble* > 'a thing or person that gives trouble': *Alack, what trouble was I then to you?* (1610). *Your appointed Feasts . . . are a trouble vnto me, and I am weary to beare them* (1611).

French and Latin influence is possible in some of these cases.

13.3. Adjectives and Adverbs.

Adjectives signifying 'rapid', in the physical sense, acquire the meaning 'eager, willing' when used of living beings or other objects conceived as living. The apprehension shifts from the purely physical notion to the notion of the mental state that is considered as causing, or as involved in, the physical rapidity. This happens with OE. *hræd, swift, snel* and *leoht*. The following are equivocal instances, all of them taken from Stern, Swift (261, and the paragraphs quoted there): *Hreðe* (Vulgata: *veloces*) *foet heara to ageotenne blod. Ic lære, þæt þu beo hrædra mid hreowlicum tearum. We beoð ful swyfte to farenne geond ealle widgylnyssa Godes rices. Hiræ fet hræþe ł snelle to ægiotænæ ł to scedende blod. Se wæs mid dædum snelra þonne he mægenes hæfde* (*: celeritate magis quam virtute fretus*). *Se hæfde moncynnes mine gefræge leohteste hond lofes to wyrcenne. Þatt aȝȝ wass lihht all allse chaff To follȝhenn alle sinnes* (1200).

The use of adjectives with nouns that denote living beings is the cause of several other sense-changes in adjectives, as 'rapid' to 'rash'; 'rapid' or 'prompt' to 'mentally quick'; and 'ready, willing' to 'prompt'. See, for particulars, Stern, Swift 261 sqq. No doubt the adjectives are often thus influenced by the nature of the governing word, but there is not sufficient material available to show if this is a general rule.

German *billig* was originally 'æquus', and *billiger Preis* meant 'a reasonable, moderate' price, a price that was not exaggerated, but filled the demands of *æquitas*. Since such a price is generally comparatively low, the word *billig* was repeatedly associated with the notion of 'low', which thus became an element of meaning, and finally took the place of predominant element, as being frequently the most important element, both to seller and buyer. When the seller said, *ich verkaufe es dir um einen billigen Preis,* his *billig* might be only relatively 'moderate', but for the buyer it was not 'moderate' unless it was 'cheap', and if they were to come to an understanding the seller would have to accommodate himself to the buyer's notions (Stöcklein 19. Cf. Wellander, Studien III 244, and 10.424 above).

The permutations of adverbs are often dependent on the meanings of the governing verbs, like those of adjectives on the nouns. ME *faste* originally means 'vigorously, energetically'. It was employed to intensify verbs denoting some kind of physical action, and was one of the most common intensifiers in ME. In connection with verbs of motion, as *he renneth faste* 'he runs vigorously, with energy', the adverb took on the meaning 'swiftly', since anyone who runs with all his might will also get over the ground swiftly. That is often the most important point for both speaker and hearer, and so the new meaning was enabled to take the place of predominant element, to the exclusion of the earlier meanings. (Cf. Stern, Swift 265 sqq.). Several other adverbs pass through a similar development.

Another change of the present type is that from 'rapidly' to 'immediately' which has been described in 7.45. I may point out that here, too, the change in the adverb is correlated to a change in the meaning of the governing verb, from imperfective to perfective.

13.4. Verbs.

To cancel, from F. *canceller,* from L. *cancellare,* is "to make lattice-wise, to cross out a writing, f. L. *cancellus, cancelli,* crossbars, lattice.

In English the original meaning was 'to deface or obliterate (writing) by drawing lines across it lattice-wise, to cross out, strike out. Of legal documents, deeds, etc.: To annul, render void or invalid by so marking". But the effect of the action was, as often, the most important element in the meaning of the word, and came to predominate, to the exclusion of the original concrete meaning: *Cancellynge or strekynge owte a false word* (1440). This may be equivocal. The new meaning (after adequation) is shown clearly in: *All such bandes and promysses that the Kynge or any other had made . . . shuld be adnulled & cancelled* (1494).

To soothe is related to the adjective *sooth* 'true', and came to mean 'to declare to be true' > 'to back up or support a person in a statement or assertion'. Since this method is often resorted to in order to please or humour somebody, the verb took on the sense 'to blandish, cajole, or please a person by agreement or assent, to flatter in this way, to humour': *For sooth Roister Doister in that he doth say, And require what ye will ye shall haue no nay* (Ralph Royster Doyster, Arb. I 1: 'for back up (or humour) R. D. in what he says, and you shall not be refused whatever you ask').

The earlier meaning of *want* is 'to be in want of something implied by the context'; this passed into 'to suffer the want of, to have occasion for, need, require, to stand in need of': *Deyr cusyng, pray I the, Quhen thow wantts gud, com fech ynewch fra me* (1470). From the modern point of view this would naturally be taken to mean 'when you desire', but that sense is not given by the NED until 1706: *All such as want to ride in Post-haste from one World to the other.* The equivocation was there from the beginning, for what a person needs, if it is something necessary, he also desires.

13.5. Particles.

There are in English some participles in *-ing* which develop a conjunctional or quasi-conjunctional meaning, *e. g.*, *seeing* 'considering the fact that, inasmuch as, since, because'. *I wol . . . exhorte you to take it as . . . paciently as ye can, seeyng that we al be mortal and borne to dey* (1503). The NED remarks that this "is a doubtful or transitional example, as the pple. admits of being construed as in concord with the subject, in the sense 'recognizing, perceiving'. The development of the conjunctional use may have been aided by the similarity of sound with *sen, sin,* conj." Other participles with a similar development are *considering, excepting, providing, supposing* (cf. NED and Bøgholm 141). It is common to them all that the notion of the verbal action disappears, and the notion of the logical relation between the two relevant clauses or words takes its place as predominant. I am not quite certain that this cannot be an adequation.

Carnoy (236) gives the following instances in illustration of the development of F. *cependant* from an adverb of time to an adversative conjunction: *Il me recommande d'agir ainsi, cependant* (*sc. qu'il parle*) *je l'écoute poliment. Il me recommande d'agir ainsi, cependant* (équivocal) *je prête peu d'attention à ses propos. Il me recommande d'agir ainsi, cependant je n'en ferai rien.*

The development of *il a beau* is thus illustrated: *Il a beau rire* (= *il peut rire à l'aise*), *je ne puis l'attendre. Il a beau rire, cela ne m'émeut guère. Il a beau rire, je ne l'en attraperai pas moins.* The last phrase shows the antithetic meaning (Carnoy 236).

German instances of a similar development are *weil* and *während: Die Blumen schliessen sich, weil es regnet;* here the causal notion may enter into the meaning of the originally temporal conjunction. Similarly, *während die Belagerten schwere Not litten, hatten die Belagerer Ueberfluss,* where an adversative sense is suggested, and may develop into the predominant element. (See Leumann 109).

In English, *while* shows a similar development from temporal to adversative and concessive import: *Painefully to poare vpon a Booke, To seeke the light of truth, while truth the while Doth falsely blinde the eye-sight of his looke* (1588). *While they deny a Deity, they assert other things on far less reason* (1662). *While* here means 'when on the contrary or on the other hand, whereas'. (Latin instances are given by Stöcklein 15 sqq.)

Another group is constituted by local prepositions developing a temporal meaning. Stöcklein (56) quotes Latin *statim, extemplo, illico* (in loco), German *auf der Stelle* corresponds to English *on the spot,* Swed. *på fläcken:* to do a thing while you remain in the same spot is to do it at once.

CHAPTER XIV

CLASS VII. ADEQUATION

14.1. Theoretical Discussion.

14.11. *Analysis.* Adequation is Stöcklein's term for a very common semantic phenomenon which he analysed in various forms, but which extends further than he was at that time able to see.

Stöcklein illustrates adequation by the word *anziehen;* originally, it signified 'to pull or draw on', later 'to put on' an article of dress. The word was used originally of boots and other things which are really pulled on, but since the most important thing from the dresser's point of view is the result of the action, in other words, that he gets his boots on, the notion of physical effort receded and had to give up its place as predominant element to the notion of 'getting or putting on'. When this point had been reached, it was further possible, through a transfer, or perhaps a mere extension, to say *Hemd*, *Kragen*, *Gürtel*, *Kravatte anziehen* (Stöcklein 20, with many other instances). We have to distinguish carefully between the process of adequation and the following transfer.

An English instance is the word *horn.* Animals' horns were used for producing signals or music, and were of course called *horns* even when so used. That is a case of substitution. But the principal thing about such an instrument is not the material from which it is made, but its purpose: that it is capable of producing certain sounds and of being used for certain purposes. The meaning of the word, as applied to horns thus used, was specialized in a corresponding manner. The principal element of its meaning — of the subjective apprehension of the referent — changes; the notion 'animal's horn' recedes to a subsidiary position, and the notion 'instrument of a certain kind' takes its place as predominant. It is a case of changed specialization of meaning.

When this process of adequation had run its course, other instruments, generally of the same shape, producing similar sounds and capable of being used in the same way could, by a new substitution, be called *horns*.

As Wundt has abundantly demonstrated (cf. 14.12) we often name referents by a single characteristic which happens to strike us, and which may be of subordinate importance for the real status of the referent in our universe of action and discourse. The meaning of the name is, however, most frequently specialized on the most important characteristic, which thus becomes more closely associated to the name than any other. The meaning undergoes adequation to what is now considered by speakers as the main characteristic of the referent, and the basis of naming, now relatively unimportant, recedes, and eventually disappears. "So weist denn die Sprache das Bestreben auf, den Ausdruck mit dem realen Verhalt auszugleichen" (Stöcklein 51, cf. ib. 24 sqq.).

Adequation is similar to permutation in being based on a shift of the subjective apprehension of the referent, but it differs from it in various ways. Adequation is an affair of the single word and its referent, permutation can occur only when the referent is an element of a peculiar kind of total. In adequation there is primarily no change of referent, only of meaning; or rather, a shift of attention from one characteristic of the referent to another, which is equivalent to a change of predominant element of meaning; permutation is a change of apprehension involving a change of referent.

The difference comes out clearly if we compare the following diagram with the one given in 13.11:

	I	II	III	IV
Word:	*horn*	*horn*	*horn*	*horn*
Meaning:	$\alpha\ x$	$\alpha\ (\beta)\ x$	$(\alpha)\ \beta\ x$	$\beta\ x$
Referent:	$a\ x$	$a\ (b)\ x$	$(a)\ b\ x$	$b\ x$
	Animal's horn	Animal's horn used for music	Musical instrument made from animal's horn	Instr. for producing a certain kind of sound

The Roman numerals designate the phases of the development.

In the first phase, *horn* means simply 'animal's horn'; its main characteristic is *a*, apprehended as *a*; various subsidiary characteristics, which do not influence the development, and so are irrelevant to the present argument, are denoted by *x*. In the second phase, *horn* denotes an animal's horn which is used to produce musical sounds; this is as yet a subsidiary characteristic, as indicated by the brackets round *b*. The process of change is a substitution. In the third phase, the adequation, such musical instruments have grown more common, and form a definite category; the fact that they are made from animals' horns is a characteristic of subordinate importance and has receded into the background, as indicated by the brackets round *a*, while *b* has taken the place of predominant characteristic. In the fourth phase, *a* has completely disappeared, and *horn* is applied to instruments of the same type made from any material: this is a second substitution.

The diagram enables us to distinguish clearly the primary substitution, the use of an animal's horn for music, from the adequation through which the meaning of the word adjusts itself to the change in the referent; and the adequation in its turn must be distinguished from the subsequent new substitution. The semantic history of many words, denoting referents that are affected by the progress of culture and civilization is thus, when analysed in detail, shown to be a complicated series of alternating substitutions and adequations.[1])

14.12. *Types of Adequation.* The material for analysing adequations is very unsatisfactory, but it appears probable that we should reckon with two main types.

The first type is exemplified by *horn*, and may be described as adequation after a preceding sense-change of another kind. Through a sense-change a word comes to be employed of a new referent, and (at least in a majority of cases) it denotes the new referent in a specific aspect only; in the terms defined in 4.24, the meaning of the word is specialized in one way only, expressing an apprehension of the referent with one characteristic predominant, *viz.* the characteristic which is primarily involved in the change, and which is consequently the basis of naming. Thus, when the secondary meaning of *horn* first emerges, the word denotes the referent as an animal's horn used as an instrument.

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[1]) The above formula for the changes of meaning is essentially identical with Wundt's formula for *komplikativer Bedeutungswandel*, but Wundt takes the whole process as one change, while I analyse it as a succession of changes (Wundt II 553).

This one-sided view is transformed, through adequation, to an all-round view of the referent, so that we can apply the word *horn* to the referent in any aspect, even if the fact of its being made from an animal's horn should be quite lost sight of.[1]) The meaning may then be specialized on any characteristic of the referent.

In some cases, the original basis of naming quite disappears from the meaning. No one except the etymologist knows that a *dunce* is originally a disciple of John Duns Scotus, or that an *arrant* knave was originally a strolling knave. These elements of meaning are dead to English linguistic feeling.

The second type of adequation is represented by *anziehen*, and comprises the instances in which the adequation is *not* preceded by another kind of sense-change. It is constituted by the emergence and rise to a predominant position of a characteristic that has not previously played any important part. This characteristic may be of a more general nature than the one on which the name is based. That is the case with *anziehen*, where the new meaning, the notion 'to put on', covers the old meaning 'to pull on', and a number of other operations besides. In other cases the characteristic in question is of a more particular character, so that the range of the word is restricted, and a portion of its applications may pass out of use. The restriction may be primarily a specialization or a particularization. (See 14.8).

Wundt is apparently speaking of adequation in Die Sprache II 511: "Ist die Benennung (sc. of an object, *Gegenstandsbegriff*) entstanden, so ändert sich nun dies Verhältnis (sc. the close association between the name and the predominant characteristic δ) zugunsten des Namens. Dieser erweist sich jetzt als der konstanteste Bestandteil der Verbindung, der bei jeder Benennung vorzugsweise apperzipiert wird, während das dominierende Merkmal δ, das zuerst dem Namen seinen Ursprung gab, andern Bestandteilen weichen kann. Dadurch verschwindet allmählich die engere Beziehung zwischen δ und n (= the name) aus dem Bewusstsein, und nur die feste Assoziation von n mit dem ganzen Gebilde (A. X) bleibt zurück. Hieran ist der weitere wichtige Erfolg geknüpft, dass durch diesen Uebergang von δ in die Gesamtmasse der Elemente zugleich der Weg für einen fast unbeschränkten Bedeutungswandel frei wird. Solange δ dominierendes Element bleibt, ist dieser nur innerhalb der Grenzen möglich, in denen die Verbindung (A. X) eine Determination durch δ zulässt. In dem Augenblick, wo n ganz an die Stelle von δ getreten ist, entfaltet dagegen das Wort seine Fähigkeit, sich mit jedem beliebigen Vorstellungsganzen assoziieren zu können, falls nur die psychologischen Bedingungen günstig sind. Solche Bedingungen sind aber in dem unablässigen Fliessen der Elemente des Komplexes (A. X) gegeben''.

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[1]) Cf. Wundt's remarks on the processes that follow on sense-change "mit wechselnder dominierender Vorstellung": the peculiarities of this type lie not in the shift itself, "sondern in dem ihm folgenden weiteren Wandel der Begriffe . . . Unter diesen Bedingungen (sc. der Begriffsentwicklung) spielen namentlich diejenigen eine Rolle, die auf ein allmähliches Schwinden der ursprünglich herrschenden Elemente gerichtet sind. Sie sind es, die dem ganzen Prozess sein Gepräge geben, und die zugleich in vielen Fällen ein völliges Erlöschen der einstigen Bedeutung bewirken" (Wundt II 536). Wundt's instances under this heading are mostly permutations and adequations.

With regard to adjectives, Wundt states (II 517) that the predominant elements play a much more important part owing to the constant variation of all the other elements of the group (A. X). In the names of objects, as just mentioned, the predominant element soon merges in the name, but in the names of qualities it remains connected with n so that the combination $n\delta$ constitutes the predominant element.

It is apparent that Wundt's analysis is, on many essential points, identical with mine. There are also, however, differences. It is true that the original predominating element, which Wundt designates by δ, may disappear; that is the case for *arrant* and *dunce*, as stated above. But in the case of *horn* and *anziehen* the original predominating element does not disappear in that way; the old meaning remains by the side of the new one, as one of several specialized meanings within the range of the word: *anziehen* may still mean 'put on' or 'pull on'; *horn* may still be used of an animal's horn without any thought of its use as an instrument.

Wundt's statement that there remains only the firm association between the name and the whole meaning complex agrees with my theory, but the inclusion of the referent in the argumentation makes a difference. I say instead that for the single special meaning at first possible, there is substituted the possibility of specializing the meaning on any characteristic, old or new, of the referent, with the result that the characteristics which are most important for speakers will inevitably push to the front, sometimes to the entire exclusion of the original basis of naming, as in *dunce* and *arrant*.

Wundt's theory is that the name itself becomes the predominant element of meaning. The matter is not quite clear. What Wundt describes in this way is, I think, what I would call referential meaning (4. 24), where the apprehension of the referent hardly comprises more than the bare reference, perhaps with a vague awareness of sphere or direction.

Wundt's statement that, after the name has taken the position of predominant characteristic, the way is open for a practically unlimited change of meaning is, I think, an exaggeration. The possibilities are limited by the factual characteristics of the referent, which form the basis of the specialization on which these shifts are founded.

14.13. *Conditions and Causes.* The conditions for the first type of adequations comprise, first, a preceding sense-change which makes the word denote a new referent, apprehended from a specific point of view; the adequation may then set in, as described in the previous paragraphs. As a further condition we have to assume a sufficient frequency in use, high enough to make the connection with the new referent habitual. Otherwise it does not seem likely that the word can be freed from associations with its primary referent and meaning. A third indispensable condition is the possession, by the referent, of more than one characteristic; this is evident from the analysis.

The second and third conditions seem necessary also for the second type of adequations.

The causes of adequation have to be sought in the unintentional adaptation of speech to its purposes, an automatic adjustment of the meaning of the word to the real importance of the referent for the speaker. In a way, adequation is the most simple and elementary change of meaning, since the shift in the subjective apprehension is the direct effect of the momentary purposes for which speech is being used. The matter requires further investigation based on a larger material than I have available.

14.14. *Delimitation and Definition.* The delimitation of adequations, the last class to be discussed, follows as a corollary from the statements previously made with regard to the other six classes.

Adequations are distinguished from nominations by being unintentional, and from regular transfers by being based on other relations than similarity. The latter distinction is here connected with a further difference. In a transfer (for instance, *saddle* 'mountain saddle'), the shift is based on the apprehension of identical characteristics in two different referents. In an adequation (as *horn*), the shift is based on the apprehension of different characteristics in the same referent (cf. 13.11). In both cases, the shift is based on the fact of specialization[1]).

The difference between permutations and adequations is evident from the analysis of the two classes above. They are similar in being based on a shift of the subjective apprehension from one characteristic of the referent to another; but in a permutation it is the *phrase* referent that is relevant, in an adequation the *word* referent. In a permutation the characteristic that rises to a predominant position was previously outside the range of the relevant word, and had another name; in an adequation it belongs from the beginning to the range of the word. This makes an essential difference, as may be seen by comparing the two diagrams in 13.11 and 14.11.

The precise distinction between adequation and mere fluctuation must be left undecided for lack of sufficient material.

One further distinction is of importance for the adequations: that between the present class and the substitutions. If we do not know the history of a word in detail, they may be very difficult to keep apart; the analysis of *horn* has already shown that they may alternate in the development of a meaning. The English word *kerchief* is from French *couvre-chef*, signifying at first 'a covering for the head'. But in 1530 Palsgrave speaks of *handekerchefe*, and in 1557 the Geneva Bible has *napkyns or handkerchefs*. The addition of *hand-* shows that the etymological meaning of *kerchief* had by this time been forgotten, and that the word had been extended to denote other articles of a similar kind. But is this a substitution or an adequation? Are we to assume that *kerchiefs* 'coverings for the head' were made use of for other purposes? That would involve a substitution plus an adequation, the name following the referent. Or are we to assume that there previously existed in use square pieces of stuff, similar to the articles called *kerchiefs*, and that the name was transferred to them? That would involve an adequation plus a transfer, the name being transferred to new referents. The matter is of some interest for the history of the individual words, and also as showing that sense-change due to external causes — substitution — is intimately connected with the — more numerous — changes due to internal, psychic and linguistic, causes. The first class in my system is no ''outsider''.

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[1]) Reichwein (189) speaking of what he calls *Gedankenverkettung*, states that there is one kind which is especially important for the formation of notions: "Haben nämlich alle Glieder einer solchen Kette ein gleiches Element, sei es nun Subjekt oder Prädikat, indem *einem* Dinge verschiedene Eigenschaften oder verschiedenen Dingen dieselbe Eigenschaft beigelegt wird, so entsteht einmal dadurch ein diese Merkmale umfassender Begriff, oder das Merkmal wird dadurch dass es an verschiedenen Dingen wahrgenommen wird, zu einer selbständigen Begriffsvorstellung". The distinction is in principle the one I have just mentioned.

On the basis of these arguments, I define adequation as an unintentional sense-change consisting in a shift of attention from one characteristic of the word referent to another; in other words, in the rise of one element of the word meaning to take the place of another as predominant element.

Some of the types belonging to adequation are very conspicuous and have long since been noticed and described. Stöcklein has discussed at length the process of adequation after metaphor, hyperbole, euphemism, etc., and Wundt, under the heading *Benennung von Gegenständen*, has analysed some types in a way that closely resembles the theory set forth in the present work. In addition, Wundt makes a separate class of what he terms *Verdichtung*, which I regard as a type of adequation. Depreciation of meaning has attracted considerable attention, and that is quite especially the case with generalization, specialization (pregnancy) and particularization, which, in earlier systems of the logical kind, play a leading part as main divisions of sense-change. The attempt to assign to all these types a definite place in a system of more modern construction is now made for the first time.

14.15. *The Theory of Mechanization.* Some remarks must be made on the theory of mechanization formulated by Wellander.

According to Wellander an essential importance is to be ascribed to the distinction between *vermittelte und unvermittelte Bedeutung*, mediated and direct meaning. In cases of mediated meaning, the connection between *Wortvorstellung* and *Sachvorstellung*[1]) is mediated by other mental elements, *eine ganze Kette von Assoziationen* (Studien I 13). Thus, when the German word *Buchmacher* is coined on the analogy of Engl. *bookmaker*, to denote a person taking bets professionally, the new word was at first incomprehensible to everybody who did not know English.[2])

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[1]) Wellander does not say if *Sachvorstellung* is identical with meaning (*Bedeutung*), or, if not, how they are related. This vagueness makes it rather difficult to criticize his position.

[2]) This is not necessarily true. The word may very well be understood *en fonction du schéma d'ensemble*. It may, for instance, be evident to the hearer that

The comprehension of *Buchmacher* was mediated by the English word. When a meaning grows habitual, the need for mediation falls away, and a direct connection is established between word and *Sachvorstellung* (meaning?): "Für das Individuum ist zuerst *jede Bedeutung*[1]) eine vermittelte. In *jedem Individuum*[1]) vollzieht sich aber bei häufigem Gebrauch des Wortes der oben geschilderte Mechanisierungsprozess, dessen Resultat ist, dass die vermittelnden Vorstellungen nicht mehr ins Bewusstsein treten, dass also die Beziehung zwischen Wort und Sache eine direkte, unvermittelte wird" (Studien I 22).

It seems evident from some of the instances given by Wellander, that the theory of mechanization is, in part, an analysis of the process that I have termed adequation. But adequation is a change of predominant characteristics, and not a falling away of mediating elements. Thus, the original meaning of *anziehen* 'pull on' (cf. 14.11) was very old and familiar, and consequently the relation between word and referent must have been "eine direkte, unvermittelte". During the whole change of meaning from 'pull on' to 'put on', word and referent both remain unchanged, and so we must conclude that the relation between them remains direct and un-mediated. The referent is seen in another aspect, that is to say, the subjective apprehension is changed, but the direct reference must be there all the time. This argumentation is, I think, applicable to several of Wellander's instances.

In part, however, the theory of mechanization seems to be intended as an analysis of the process of habituation and its effect on meanings. I refer to the summary in 6.22 of some experiments, from which it will appear that the "law of mechanization" has nothing like the universal validity claimed for it by Wellander. Mediated comprehension is found for words that must be considered as very common, even for concrete nouns like *lamp* and *carriage*. It is therefore clear, to begin, that mechanization is not a necessary consequence of repeated use, if we make mechanization identical with the dropping out of mediating elements (cf. 14.52 on metaphors that do not fade). On this point I refer to the detailed criticism by Thorndike (Psych. II 185 sqq.). He has shown that if an intermediate link tends to drop out, this can only be because it is of no importance for the momentary purpose of the speaker. (Cf. Stout, Psych. I 263 sq., on the teleological aspect of attention, and Freudenthal 58). Note that mere repetition tends to *fix* a process in mind, although it simultaneously makes the *whole* process less conscious, and more automatic (Burkamp, Kaus. 273).

Secondly, it does not seem to be true that every meaning is mediated at first. I refer to the instance of *anziehen*, just quoted, and to 3.21, where it appears that the meaning relation may be established in various ways, and that a direct relation may be brought about from the outset. Also, the reports in 6.22 show that the mediating elements, when they occur, are not necessarily associates of the referent, but more often correlates or symbols.

I conclude that Wellander's theory cannot be accepted in its present form. We

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the speaker is indicating with the strange word a definite person, who is known to exercise the profession in question.

[1]) My italics.

must distinguish clearly adequation and habituation; with regard to the latter, the occurrence of mediating elements is by no means universal, and they will tend to drop out only if they are of no importance for the speaker's purpose.

14.16. *Classification.* The first distinction to be made is that between the two types of adequation already mentioned above: adequation after a preceding sense-change of another kind, and adequation without preceding sense-change.

Within the former type we have, naturally, to discriminate six groups, according to the nature of the preceding change. The most important of them is adequation after nomination, which has attracted much attention and requires a detailed discussion. It involves a considerable change of meaning. In cases like *horn*, it is the following transfer or extension of the word to new referents that enables us to infer the adequation which conditions the subsequent shift; the adequation itself could otherwise scarcely be traced, even with a very full material. When no such exterior circumstance allows us to infer the presence of adequation, it can often be conjectured on general grounds only. It is therefore somewhat elusive, and requires much additional research.

In the second main group of adequations there are several possibilities. The element of meaning that rises to a predominant position may be of a more general character than the one which it replaces; the range of the word is then extended (14.82). In other cases, the process is reversed, and may be either a particularization or a specialization (14.83—85).

Since adequation follows as a necessary consequence after most other sense-changes, it must be the largest of all the classes.

14.2. Adequation after Substitution. I have already analysed a typical case (14.11) to which I refer. It is to be assumed that a similar process of adequation follows on every substitution that is adopted and grows sufficiently frequent. (Additional instances are given by Stöcklein 34 sqq.)

14.3. Adequation after Analogy. When the adjective *fast* borrowed the meaning 'rapid, swift', from the adverb *faste*, we may assume that the new meaning of the adjective was at first restricted to certain obvious connections. Gradually, through adequation, the adjective grew capable of being used in its new meaning with any headword. Similarly in cases of correlative analogy, as *arrive* (9.31). It seems doubtful if knowledge of the corresponding meaning of French *arriver* is necessary in order to understand the new meaning of *arrive* (cf. the remarks on *Buchmacher*, 14.15). But if the theory of a mediating *figürliche innere Sprachform* is applicable anywhere, it ought to be in cases like these. Cf. also *actual* and the other instances quoted in 9.333.

With regard to phonetic associative interference (as *belfry*, 9.44), the sense-change might be described as a process of adequation to the notions with which the word is, wrongly, associated, and to the characteristics of the referent which it is used to denote.

14.4. Adequation after Shortening. It may be assumed that immediately after a shortening — we confine ourselves to omissions, since clippings are of inferior interest with regard to sense-change — there may remain a feeling of connection with the fuller expression, a feeling which disappears with repeated use of the shortened expression. Omissions are conditioned by the occurrence of an adequate context which supplies the functions of the word left out. We have to assume that *private*, for *private soldier*, occurs at first in definite contexts only, but when the use of the shortened expression grows habitual adequation sets in, and *private* acquires the capacity of signifying 'soldier' in any context.

The material at present available is quite insufficient for making any definite statements on adequation after analogy and shortening, and the psychic processes involved in it.

14.5. Adequation after Nomination.

14.51. *After Intentional Naming and Intentional Transfer.* If we invent the word *bodeful*, to replace *ominous*, it seems possible that adequation follows, taking the form of a fading (as in metaphors, see 14.52) of the emotive element at first present in its meaning. The real facts of the case can be ascertained only through special investigation.

After intentional transfer, adequation seems more evident. If we transfer the name *labyrinth* to a certain part of the ear, the feeling of the original meaning will gradually fade, at least to the linguistic feeling of people habitually employing the word in its new function and the word will appear as a normal name for its referent.

14.52. *The Fading of Metaphors.* The adequation that often occurs in metaphors is generally termed *fading*. It involves the disappearance of the association with the primary meaning of the metaphorical expression, so that the expression becomes an ordinary appellation for the referent, without any outside association, cognitive or emotive. Every language is full of faded metaphors, and it is scarcely necessary to quote instances. I take at random the following list of synonymous adjectives from Roget's Thesaurus: *redundant, exuberant, superabundant, immoderate, extravagant, excessive.* In some of these, English linguistic feeling has quite lost touch with the etymological meaning.

Several writers have assumed that the fading of metaphors is due to mere repetition. However, there are metaphors which have not faded, in spite of habitual use; such are many religious metaphors.

The teleological aspect of speech was emphasized above (14.15) in connection with adequation. It leads to the view that the metaphorical elements of meaning will tend to drop out only if they are of no value for the speakers' purposes. Repetition furnishes favourable conditions for adequation, but the causa movens is, as usual, to be sought in the functions of speech.

A general rule for the fading of metaphors may be formulated in the following way: If a speaker desires to present the referent in an emotive colouring, he will make use of expressions which habitually carry, or are capable of momentarily carrying, an emotional tone. This will happen with regard to referents which are, habitually or momentarily, of emotional value to speakers. Metaphors which are used mainly of such referents and for such purposes will tend to retain their emotive force. Examples: many religious metaphors.

On the other hand, if speakers make use of metaphorical expressions simply for symbolic and communicative purposes, the expression will tend to lose its emotive force. This will happen with regard to referents which are normally without emotive value to speakers, and which are mentioned for purposes of communication only. The reason for using metaphorical expressions in a way which seems contrary to their nature may be lack of other suitable expressions, or mere habit.

An instance of the latter type is the Swedish word *apelsintalare*, literally, *orange-speaker*. The word was coined by a journalist in the Swedish Diet to denote unimportant speakers who need not be reported, and whose speeches consequently gave the reporters an opportunity to put down their pencils and refresh themselves with an orange. The distinction between speakers who must be reported, and those who need not, is of considerable interest to parliamentary reporters, and they will often have occasion to mention both kinds. There was no handy appellation for the second category until the new word appeared, and it was soon adopted. Thus it came to be employed for purposes of symbolization and communication, without humorous intention, and speedily became the habitual name, at least among the reporters, for the referent 'an unimportant speaker'.

I may further mention nicknames that have become the ordinary appellations of their referents; especially religious and political nicknames like *Whigs, Tories, Quakers* (who, however, do not themselves use this term), *Puritans, Roundheads; les gueux* is a famous French instance. Tappolet (GRM 14) quotes names for parts of the human body that were originally humorous, but have become the ordinary names.

The theory of repetition is further contradicted by the fact that a metaphor can fade even if it is not used. The metaphors of euphuistic writers no longer appeal to us, because literary taste has changed since it was possible to write with serious intent:

My pen's the spout
Where the rain-water of mine eyes runs out.

No doubt such things were once thought beautiful, since people took the trouble to write them, but to us they are merely silly.

Wundt discusses the fading of metaphors (II 608) and mentions frequent repetition as a contributory cause. He appears to ascribe the greatest importance to circumstances that tend to loosen the connection between the metaphorical word and its primary meaning: as for instance a phonetic differentiation; G. *Kran* 'crane = hoisting apparatus', as compared with *Kranich* 'crane = bird'. Another circumstance is the basing of a metaphor on an unusual association which is easily forgotten.

This agrees with my definition of metaphor. The essence of the metaphor lies in the tension between the actual verbal context and the primary meaning of the metaphorical expression. If the latter is forgotten, the tension disappears, and the name is no longer metaphorical, for there is no longer an enhancement. The cognitive and emotive characteristics of the metaphor are equally dependent on the evocation of the primary meaning, or some element or elements of it, and consequently we need not distinguish cognitive and emotive fading, as we have to do for the hyperboles. An instance may be quoted. People or things that are 'weeping, tearful, lachrymose, sentimental, mawkish' are called *maudlin*, "from the attributive use of *Maudlin* (= Magdalen) in allusion to pictures in which the Magdalen was represented weeping" (NED). When the connection with the Magdalen was lost to linguistic feeling, the word had no longer a metaphorical force, but changed into an ordinary appellation.

14.53. *The Adequation of Hyperboles.*

14.531. *Cognitive Adequation.* The adequation of hyperboles may concern primarily either the cognitive or the emotive elements of their meaning. I shall first discuss the cognitive adequation.

A case in point, the history of which is known in detail, is ME *faste*, adv. (Cf. Stern, Swift 71 sqq.). As meaning 'vigorously, energetically' it was used to intensify various verbs the import of which permitted the use of *faste*, that is to say, mainly verbs denoting a physical action of some kind. But since the idea of physical activity is already expressed in the verb, the corresponding elements of meaning of *faste* were of no importance for the phrase meaning; the adverb functioned only as an intensifier of the verb, and the cognitive elements of its meaning were not attended to; they were therefore liable to disappear, as irrelevant to the momentary purpose.

When this adequation had run its course, and *faste* consequently was apprehended as an intensifier without any pronounced meaning of its own,¹) its use could be extended to a great number of verbs with which it would originally have been quite incompatible: verbs which denote activities or states entirely strange to the idea of physical energy or vigour. This is an extension in use, involving no further sense-change. Such verbs are those signifying 'to see, hear, think, wonder', verba declarandi, and others of similar import.

The development of *swithe* is exactly identical in principle (Stern, Swift 113 sqq.); Stoffel has analysed a group of words which follow the same lines: *pure, purely, very, right* (Stoffel 14 sqq., 28 sqq.). German *sehr* is etymologically identical with English *sore*. *Arg* is used as an intensive in German dialects; and so on. The type is very common. Most intensives have passed through such a process of adequation in

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¹) Cf. van Ginneken 225: On peut renoncer à la qualité du sentiment, pour n'en exprimer que l'intensité.

turning, as the NED says of *terribly*, into general intensives. The result is especially noticeable when the intensive is used in a way that is directly contrary to its etymological meaning, as for instance *awfully jolly, mighty little, pretty dirty*, and many others. "In *finely cheated*, the adverb refers to the degree of perfection with which the cheating is done" (Greenough & Kittredge 315). A newspaper writes, "It is small wonder, therefore, that member banks have been able to reduce heavily their indebtedness to the Reserve Banks", where *heavily* is used as a mere intensifier. The EDD notes that *tedious* may mean 'very, exceedingly': *That was a tedious good ball* (at a cricket match), *that was a tedious hard hit, tedious pleasant, tedious bad, tedious good.* Sheila Kaye-Smith writes (Sussex Gorse 38): *that is a tedious good sign.*

In colloquial language, especially the more slangy varieties, the search for new and startling intensives is constantly going on. The two following instances are comparatively moderate: *Before breakfast? — Oh, before, oceans before!* (Kipling). *I don't think a whale of a lot of this* (Sinclair Lewis).

Galsworthy (Swan Song 254) writes: "He seems to be an absolute rotter. I saw his face once — bone slack and bone selfish". The NED does not register *bone* as an intensifying adverb, except in *bone-white* and *bone-dry*, but in the EDD some more combinations are given: *bone-bad* 'thoroughly bad', *bone-lazy, bone-idle* 'extremely idle', *bone-lean* 'having the bones projecting', *bone-picked* 'lean, cadaverous', *bone-sore* 'aching with fatigue', *bone-tired* 'very weary'. Of these, *bone-white, bone-dry, bone-lean, bone-picked,* perhaps also *bone-sore* and *bone-tired*, appear to represent the original compounds, before adequation. After adequation, which transforms the word into an intensive of indefinite cognitive import, we get *bone-bad*, etc., and the two expressions employed by Galsworthy.

Arrant is a variant of *errant* 'wandering, vagrant, vagabond', which from its frequent use in such expressions as *arrant thief*, became an intensive, 'thorough, notorious, downright', especially, from its original associations, with opprobrious names. The senses given in the NED are: (1) Wandering, itinerant, vagrant, esp. in *knight errant, bailiff arrant*, in which the etymological *errant* is now alone used. (2) In *thief errant, arrant thief* (= robber): orig. an outlawed robber roving about the country, a freebooter, bandit, highwayman; hence, a public, notorious, professed robber, a 'common thief', an undisguised, manifest, out-and-out thief. (3) Hence, Notorious, manifest, downright, thoroughpaced, unmitigated. Extended from *thief* to *traitor, knave, rebel, coward, usurer:* after 1575 widely used as an opprobrious intensive, with *fool, dunce, ass, idiot, hypocrite, Pharisee, Papist, Puritan, infidel, atheist, blasphemer,* and so on through the whole vocabulary of abuse (NED).

The prefix *arch-* has lost its original cognitive import. It was first used as a prefix to titles: *archduke, archbishop.* "Since the 16th c., *arch-* has been freely prefixed to names of agents and appellatives (like *arci-* in Ital., and *archi-* in French, as *archifou, archipédant*); in a few instances also to appellations of things, and occasionally even to adjectives. Finally, from its faculty of being prefixed to any appellative, *arch* has gradually come to be a separate adjective . . . As a prefix the usual sense is 'chief, principal, high, leading, prime', occasionally 'first in time, original, initial', but in modern use it is chiefly prefixed intensively to words of bad or odious sense, as in *arch-traitor, arch-enemy, arch-rogue*" (NED. Cf. Weekley, Words 83). In this case the English development is probably influenced by the French or Italian patterns.

Here belongs the adequation of words used to intensify a negation. I have already analysed the process with regard to the French negations with *pas, point,* etc. (10.3). The reason for the fading of the cognitive element may be assumed to be the fact that the intensification is the principal function of the word, and that therefore, in accordance with the teleological nature of semantic development, the other elements tend to fade. Jespersen (Negation 15 sqq.) gives numerous English instances of the same kind, in which the etymological meaning of the intensifier is more or less completely forgotten: *He was not a bit impressed. Never got a sniff of any ticket, Am I not to care at all? Not a scrap! He doesn't care a toss about all that. It shold not auaylle me a cattes tayl* (Caxton). Jespersen refers to Hein and Willert for further instances. Carnoy (370) quotes *I don't care a damn, a straw, a fig; it is not worth a rap, a red cent, an oyster, a hen, a leek.* Meumann (Sprache d. Kindes) reports that a child apprehended the first elements of *mausetot* and *eiskalt* merely as intensifying prefixes, and on their analogy made the new compounds *mausetrocken* and *eisheiss.* (Further instances, see Carnoy 360 note, Beckman 136, Jespersen, Subtraktionsdannelser 16 sqq., K. Müller, Stoffel 119, Ginneken 227, Falk, Betyd. 78, Greenough & K. 311, Hultenberg passim).

A somewhat different type is represented by *immediately*, which is hyperbolically used for 'within a short time', and so acquires this meaning: "It is said that *Money* (a play) is to be immediately revived with a strong cast, which is to include the Bancrofts". "Messrs. Macmillan and Co. will publish immediately . . . " (Stoffel 3). *By and by* has passed through a similar development: "And she came in straightway with haste unto the king, and asked, saying, I will that thou give me by and by in a charger the head of John the Baptist" (Mark 6, 25); in modern use the word has changed its meaning (Stoffel 4). Similarly *anon, belife, presently, soon* (Stoffel 8 sqq.).

14.532. *Emotive Adequation* (*Fading*). Wundt (II 574) analyses the fading of intensives in the following manner: "Wenn sonst im allgemeinen die Vergleichung solcher Bedeutungsänderungen, bei denen eine Werterniedrigung stattfindet, mit der Wertabnahme abgegriffener Münzen ein unpassendes Bild ist, bei dem die wirklichen Ursachen der Vorgänge im dunkeln bleiben, so kann hier, im Gebiet der Gefühlswirkungen, von einer Abnutzung durch den Gebrauch eher geredet werden. Sie entspricht in diesem Fall der allgemeinen Erfahrung, dass Gefühle durch häufige Wiederholung sich abschwächen. Aber mag dieses Moment mitbeteiligt sein, für sich allein reicht es schwerlich aus, einen Bedeutungswandel zustande zu bringen. Ein positiverer Grund zu einem solchen liegt dagegen sehr häufig in der wirklichen Gefühlssteigerung im Affekt, die den Redenden zu einem Wort greifen lässt, das dem auszudrückenden Gefühlswert, objektiv betrachtet, nicht entspricht. War es nun aber auch subjektiv in dem Moment, wo es zuerst angewandt wurde, ein adäquater Ausdruck des gesteigerten Gefühls, so kann doch diese Wertung nicht andauern. Fixiert sich daher gleichwohl das im Affekt gebrauchte Wort, so ist die Abnahme der ihm innewohnenden Gefühlsstärke die Folge".

In other words: the intensity of feeling expressed by a hyperbolical word may have two sources, (1) the emotional quality that really belongs to the referent, and (2) the momentary excitement of the individual speaker. (Cf. 4.154 and 4.155). The latter factor makes the speaker employ a stronger word than is justified by the former. If the word, in spite of being only momentarily justified, establishes itself in usage as denoting the referent in question, the result will be that when the momentary excitement wears off, and the referent retains only its permanent emotive value, the meaning of the word will adapt itself to that value, and thus the intensity of its meaning will be lessened.

I may remark first that Wundt is obviously right in not attributing any great importance, in this connection, to the fact that feelings are liable to fade on frequent repetition, and with the lapse of time. Suppose a speaker denotes his feelings with regard to the death of a friend or relation by the phrase, *I feel it terribly*. Suppose further, that after six months the intensity of his feelings has been reduced to, say, half of what it was before; this circumstance has no immediate effect on the meaning of the word *terribly*, since it is uncertain if the speaker will continue to make use of that word; he may say instead, *I feel it very much*. It is, as Wundt says, only if the intensifier establishes itself in usage, that its meaning follows the sinking intensity of the feeling. But even then, there is a further reservation to be made. The sinking intensity of feeling is a process in the *individual* mind; a change of meaning is a process that affects the *community* or at least some considerable portion of it. We must be careful to include in the argumentation only processes which can be assumed to represent a more or less general tendency. In the causal connection between the fading of an individual feeling in the lapse of time, and the fading of an intensive, there are thus two gaps to be taken into consideration: between the sinking intensity of a feeling and that of a word-meaning; and between the individual and the general development. Note, too, that the fading of an intensive often does not prevent it from being used in its full force in appropriate contexts. Compare, for instance, *awfully pretty*, and *Awful Murder in Whitechapel!*

Wundt's explanation is probably correct as far as it goes. Exaggerated emphasis is typical of the everyday conversation of many speakers, perhaps especially of women, even if they do not all rise to the level of Topsy. They are anxious to make an impression on the hearer, and to attain this object they will resort to all kinds of intensifying words, justified neither by the topic nor by their own real feelings. Both the speaker and, perhaps especially, the hearer, realize that the real state of things is not so "bad as it is painted".

Another reason for fading — a reason that may seem, at the first glance, to be at variance with the preceding explanations — is, in my opinion, to be sought in the fact that the feelings of a speaker are *less* intense than the referent would actually merit. This happens with referents that are far away from us in time and space, or perhaps only in sympathy. Suppose a person to be speaking of the sufferings that accompanied the ravages of Tamburlaine, or of the famine in China. He will perhaps call them *horrible* and *terrible*, and he will realize, intellectually, that they deserve these epithets. But his subjective emotion will be much less intense, and since the emotive element of meaning is equivalent to the speaker's subjective attitude, that element will have a lower degree of intensity than the word really could have expressed. An intensive word will then be used to express a comparatively weak intensity of feeling, with the result that the meaning of the word loses intensity.

Stöcklein (48 sqq.) calls this type *Reaktion auf Uebertreibung*. He points out that exaggerations play a very important part, in vulgar speech especially, and thinks that the weakening originates mostly with the listener. Truth is simple and naked; when a person employs exaggerations he gives the impression of being not quite sure of his facts, and the listener therefore takes them at a proper discount. The use of exaggerations may, as Nyrop points out (IV 110), be a mere fashion. In certain styles of speech, especially colloquial style and slang, new hyperbolical expressions are constantly being introduced and through excessive use being deprived of their original force. As Carnoy states (365), it may even happen that when a speaker arrives at something that really deserves his superlatives, he has already exhausted his stock, and is obliged to resort to a moderate word, but with an emphatic accent. A gentleman showing his wines to some friends, praised one as delicious, another as superior, a third as exquisite, and when he arrived at the fourth, which was the best of them all, he exclaimed, *This wine, gentlemen, is good!*

The degeneration of hyperbolic words is a well-known phenomenon. "*Astonish* is literally 'to thunderstrike' (L. *ex-* and *tonare* to thunder), and was once common in the physical sense of 'stun', as when Fluellen *astonished* Pistol by hitting him on the head with a cudgel. It was also used metaphorically for the extreme effect of terror or wonder in paralyzing the faculties for the moment — a man who was 'astonished' was in a kind of trance. But the word has gradually lost its force, till nowadays it is hardly more than an emphatic synonym for 'surprise' or 'excite wonder'. *Amaze* has behaved in a similar way. In its earliest uses it conveyed the idea of utter physical stupefaction, or loss of one's wits. It is still somewhat more emphatic than *astonish*, but it is far from maintaining its pristine vigour. *Surprise*, which meant literally 'to seize upon', 'to capture' (compare the military sense), has become purely descriptive, and is as dispassionate as a quadratic equation. When we wish to express the idea in its full force, we resort to emphatic adverbs (*utterly* amazed, *profoundly* surprised, *unutterably* astonished), or we employ new terms of similar meaning, like *thunderstruck*, or *stupefied*, or *petrified* with wonder, or the colloquial *dumbfounded, flabbergasted, paralyzed*. All these show a tendency to lose force as time goes on" (Greenough & K. 309—310).

Not only intensives like *terrible*, but also adjectives and adverbs of praise undergo fading. "*Beautiful* and *fine* are natural and simple expressions; but they soon become too weak to satisfy the enthusiastic tourist or spectator, and stronger words are substituted, such as *lovely, delightful, splendid, glorious, superb, grand, wonderful, gorgeous, heavenly, sublime, magnificent, perfect, divine, tremendous, entrancing, stupendous, enchanting*. Of the same sort are the genuine slang words *rattling good, tip-top, first-rate, immense* (cf. German *kolossal*), *stunning, corking*" (Greenough & K. 313).

Particles of affirmation and negation are often intensified by additional syllables, but generally lose their force in spite of that. OE *gea* 'yes' was re-inforced by the addition of *swa* 'so', the combination signifying 'just so!' or 'yes, indeed'. But the combination in the lapse of time lost its force, and degenerated into a regular particle of affirmation, being at the same time shortened to *yes*. The cognitive adequation of the French negations, *ne-pas* etc. has already been mentioned (14. 531). Parallel with the cognitive adequation there went a process of emotive fading, reducing the original intensity of the phrases (cf. 10.3).

Names for unpleasant things are sometimes used with exaggeration, with the usual result. Eng. *dirt*, originally 'ordure' comes to mean 'unclean matter, filth', then 'wet mud or mire of the ground', and finally 'mud, soil, earth, mould, brick-earth' without any depreciative colouring at all. *Nasty* at first signified 'foul, filthy, dirty, unclean, esp. to a disgusting degree'; it has been greatly toned down, and now signifies 'offensive, nauseous, disagreeable, unpleasant, objectionable, annoying', and is in common use as a general epithet expressing dislike or annoyance: *that little nasty lawyer that came up to me so sternly* (1711); *does not the nasty red colour go down out of my face?* (1732). *Rotten* 'decomposed, putrid', after having been transferred to moral notions, and signifying 'socially or politically corrupt', is now a mere expletive. (Carnoy 357 sqq., Stöcklein 48 sqq., vith numerous instances).

One characteristic group is constituted by titles. They are not seldom employed in addressing people who stand, in reality, one or more degrees lower than the title would imply. The effect is that the titles sink down to lower and broader strata than warranted by their etymological meaning. "The extension of *lady* and *gentleman* to all human beings is often unthinkingly ascribed to pushing self-assertion. In fact, however, it comes rather from politeness than from bumptious democracy. A woman in humble circumstances compliments her neighbour by calling her a 'lady'; the attention is reciprocated, and, the usage once established, the kindly feeling of social superiors prompts them to employ the same term in their intercourse with those below them. It is the courtesy of democracy, not its assertiveness, that brings about the results which amuse us in *saleslady* or *washerlady* or the *gentleman* who sweeps the crossing" (Greenough & K. 322).

Latin *domina* 'mistress' has become Italian *donna*, French *dame* and *madame*, English *dame* and *madam*. All women are *dames* in France and *donne* in Italy. English *mister* and *master* are from L. *magister; Mrs.* and *Miss* are from O. Fr. *maistresse*, from L. *magistrissa*. *Seniorem* has given It. *signore*, Span. *senor*, Port. *senhor*, Fr. *sieur*, *sire*, and *seigneur*, English *sir* and *sire*, with varying spheres of application, but some of them distinctly more democratic than their originals (l. c. 322). Cf. Carnoy 365 sqq., Reinius 208, Stöcklein 45, who regards the development as *Reaktion auf Schmeichelei* (*Euphemismus*).

14.54. *After Litotes.* The available material is not sufficient for definite statements. I content myself with noting that the COD lists *den* 'study' and *diggings* 'apartments' as current senses. It seems reasonable to assume that these senses have arisen through adequation of litotes (cf. 11.57).

14.55. *After Euphemism.* Instances of this type are quoted in most handbooks. As a typical instance, I may take *wanton*, OE. *wantoȝen*, originally 'undisciplined, ungoverned', of children, 'unruly, naughty'. The word was used euphemistically for 'lascivious, lewd, unchaste', and soon the latter sense, through adequation, became one of the habitual meanings of the word (cf. Schreuder 175 sqq.).

The analysis of this type is in principle identical with the analysis of adequation after metaphors. We have to distinguish euphemisms that fade from those that retain their euphemistic character. The latter are those that are generally employed with a euphemistic purpose, and in speech that has a general character of careful and decent expression. The words are thus prevented from acquiring offensive associations (cf. the analysis in 11.83). The retention of a term in a style of a certain quality prevents its losing the euphemistic force. But if the expression comes to be used in a lower style, it generally succumbs to adequation, and writers and speakers moving on a higher level will then avoid it. The meaning of the word adjusts itself to the real nature of the referent, in any aspect.

The effect of this kind of adequation, as of the preceding, is a change in the depreciative direction; if we do not know the history of the words, it is often difficult to distinguish euphemistic adequation from the depreciative specialization described in 14.84. The instances quoted in the handbooks are not always reliable. I shall mention some groups which I think really belong to the present type.

Adequation of a euphemism of decency is very common in all languages. Stöcklein quotes Cicero for the history of L. *penis*: "Caudam antiqui penem vocabant. . . At Piso . . . queritur adolescentes peni deditos esse. Quod tu in epistola appellas suo nomine, ille tectius penem. Sed quia multi, factum est tam obscenum quam id verbum quo tu usus es" (Cicero ep. ad Paetum 9. 22. 2). *Cauda* in its turn fell a prey to adequation, as shown by Horace Sat. 1. 2. 45, and 2. 7. 49. French *Retirade, Commodité, Appartement, Closet,* German *Notausgang, Hier! No. O, Für Herren, Für Damen,* are all of them equivalents for English *W. C.* and *Lavatory.* (Stöcklein 41—42. Cf. Nyrop IV 133).

"In early English *foul* and its derivative *filth* could be used (as *dirt* and *dirty* may now) without indicating any strong feeling of repulsion. In fact *dirt* was at one time a more emphatic word than *filth.* The verb to *loathe* was originally not much stronger than the modern *dislike;* the cognate adjective *loath* or *loth* still expresses nothing more than mere reluctance. But one of the most prominent applications of the verb was to express the distaste for food felt by a sick person; and as this is often attended with an actual sense of nausea, the verb came to denote such an intense repugnance as is felt for something physically revolting — something that 'turns one's stomach'. The derived adjective *loathsome* has shared in this development of meaning; in early use it was much less forcible than it is in modern English. While *distaste, disrelish, dislike* have not become more emphatic than they were when first used, the originally synonymous *disgust* is now far stronger in meaning. It first appears in the French dictionary of Cotgrave (1611) who renders *desaimer* by 'to fall into dislike or disgust of'. We have already noted that *stink* and *stench* passed in Middle English from their original neutral sense to one expressive of unpleasant sensation" (Bradley, Making of English 204).

Wanton, quoted above, is one of a large group of adjectives employed to tone down an unpleasant fact. Others are *gay, lively, fast, reckless, sporting. Crazy* and *insane* are now synonyms of *mad,* but were originally much milder; so was *disease,* which is now no longer felt as a euphemism (orig. 'discomfort'). *Indiscretion* and *transgression* are generally employed euphemisms for 'crime'. (Greenough & K. 307, Stöcklein 41, Schreuder 145 sqq.).

14.56. *After Irony.* Since the correct analysis of irony is uncertain (cf. 11.9) it is also difficult to make definite statements concerning the adequation after irony. The semantic result that would be attained through such a process can also be attained through a depreciative adequation of the type described in 14.84, or through a series of changes.

"Although every Latin scholar knows that *egregious* is properly an epithet of praise nobody would now feel complimented by being referred to as 'that egregious person'. Similarly the adjective *sapient,* literally meaning 'wise' can now hardly be used otherwise than in mockery. Here, however, the recollection of the proper sense of the word remains to give point to its contemptuous use" (Bradley, Making of English 209). The NED, too, assumes that the depreciative sense of *egregious* arose in English (there is no corresponding sense in Latin *egregius* or Italian *egregio*) "though our earliest quotations afford no evidence of this". With regard to *sapient,* I prefer to explain it as a case of depreciative adequation according to 14.84. It is perhaps not impossible to attribute a similar origin to the depreciative sense of *egregious:* things which are very good are sometimes by some people considered rather *too* good, and therefore looked upon with mockery or irony; just as wise people might be considered too wise. But the history of the word is not well enough known to warrant a definite statement.

Bradley also claims ironical origin for the modern sense of *silly* (OE *sælig*) "which once meant 'blessed, happy', like the equivalent German *selig*. In Middle English it was often used satirically in a tone of mock envy or admiration and hence acquired the disparaging sense which it now has" (l. c.). Judging from the instances in the NED the sense-development of *silly* should be explained in another way. The earlier senses, 'blessed, pious, holy, good', easily passed over into 'innocent, harmless', and this sense forms the starting-point for the subsequent depreciative development. That which or he who is innocent and harmless is regarded with compassion (NED: "often as an expression of compassion for persons or animals suffering undeservedly"), which leads over into the next sense, 'deserving of pity or sympathy, pitiable miserable, 'poor', helpless, defenceless'. I should be inclined to place 'helpless, defenceless' before 'pitiable, miserable' in the series; that which deserves compassion is miserable and pitiable, and persons to whom these qualities are attributed, who cannot help themselves, are stupid people (see Schreuder 148 sqq.). Cf. the way in which *honest* and its equivalents in some other languages have received the sense 'stupid'; cf. also German *ala-wari* 'all-true' which has changed into *albern* 'stupid', and Fr. *benêt* 'stupid', from Latin *benedictus* (see 14.84).

German *nett* has been so often used with ironical intent that, according to Waag, quoted by Wellander (Studien I 194), it is now interpreted as ironical even in contexts which contain no indication of such a meaning.

I have to leave the matter with these remarks. Much additional research is required before a reliable account of depreciative sense-change can be given.

14.6. Adequation after Transfer. I assume that when *saddle* was first used to denote a mountain-saddle, owing to its shape, it could be used only when the shape was a central element of meaning. Through adequation, the word acquired the capability of denoting the new referent in any aspect, and with any central elements, even if the notion of its shape was not present in mind.

We have to assume a similar process of adequation for other transfers that become habitual.

14.7. Adequation after Permutation. According to the analysis in 13.11 a word that has passed through a permutation denotes its referent as seen under a particular aspect. Thus, *beads* first comes to signify 'balls of a rosary'. Through adequation, the word becomes capable of denoting such small balls even when they are not employed for the purpose of counting prayers, and it now signifies small spherical bodies of any material or with any function.

We have to assume a similar process of adequation to take place after all other permutations.

14.8. Adequation without Previous Sense-change.

14.81. *Introductory Remarks.* Adequation without previous sense-change is constituted by a shift of the attention to, and concentration of attention on, either (1) characteristics of the referent that have not previously taken a predominant position, but which now attract attention so that the apprehension of them becomes the central (predominant) element of meaning; or (2) a particular referent or some particular referents within the referential range of the word.

Employing the terms defined in 4.23 and 4.24, we may say that (1) is a specialization of meaning, and (2) a particularization of meaning.

Specialization is clearly an adequation: an adjustment of the meaning of the word to actual characteristics of the referent, or, more precisely, to actual characteristics of the referent *as they are apprehended by the speaker.* Adequation is, as shown in 14.11, due to a shift of the subjective apprehension. Specialization occurs especially when a referent has been named by a characteristic that may have been conspicuous on a first view, but which, on a closer acquaintance, proves to be of no essential importance. I refer to the instances below.

The instances of specializations may conveniently be divided into two groups. The first of these are *generalizations* of meaning. It may seem to be a contradiction in terms to speak of a specialization that is a generalization, but according to the definitions in 4.23 and 4.24, *general* is the opposite of *particular*, not of *special.* The fact of belonging to a certain genus may be a very important characteristic for a species, and attention may concentrate on that characteristic as well as on any other.

The second type is the so-called *pregnant use* of words. It implies concentration on characteristics of the referent that are, or are considered, essential and typical, mostly from a moral or intellectual point of view, and it often involves a valuation of the referent. The valuation may be appreciative or depreciative.

A particularization of meaning is constituted by a concentration of attention on one or more individual referents within the referential range of the word. It leads to what I term the *unique use* of a word. This, too, is obviously an adequation, since it involves an adjustment of the meaning to the actual characteristics of the referent or referents which the word most frequently denotes.

14.82. *Generalization.* Generalization of meaning is an adequation taking the form of a specialization on a characteristic of the referent which is of a more general nature than the formerly predominant characteristic, so that the word becomes capable of being extended to other referents, which it could not previously denote. A typical instance is *rubric.* It is connected with Latin *ruber* 'red'. It came to signify 'a heading of a chapter, section, or other division of a book, written or printed in red, or otherwise distinguished in lettering; a particular passage or sentence so marked'. The name is from the red colour; but the most important thing about the *rubric* was not its colour, but its function as a heading. This characteristic therefore became predominant; and the word could then be extended to denote other headings, not printed in red.

It is very doubtful if we can speak of a tendency to generalize as lying behind developments of this kind. It is true that it is often less of an effort for the human mind to evoke a notion of a more general kind, than one of a more particular and precise kind. Our tendency to employ genus pro specie may be quoted in this connection. It might be suggested that a speaker in using a word does not always trouble to, or have time to, evoke a precise idea of its referent, but contents himself with an awareness of sphere or direction; similarly with the hearer. Probably this can happen only on condition that the vaguer notion is able to function satisfactorily in building up the total meaning of the phrase (cf. 4.17 on vagueness of meanings). But I am uncertain if a tendency like this can have an influence on the semantic development. Until further research has decided the question, we may group together a number of instances of adequation showing the easily recognizable criterion of a generalized meaning. The process is sometimes difficult to discriminate from substitution, as shown in 14.14 (*kerchief*).

Blackbird is a species of thrush, and the name is, after adequation, transferred to other birds, irrespective of colour, similar in other important respects to the original bearers of the name. The NED quotes from Jefferies (1879) ''a white blackbird''.

The earliest meaning of *pudding* is 'the stomach or one of the entrails of a pig, sheep, or other animal, stuffed with a mixture of minced meat, suet, oatmeal, seasoning, etc., boiled, and kept till needed; a kind of sausage'; the name was generalized to cover also other dishes of similar ingredients and prepared in the same manner: 'a preparation of food of a soft or moderately firm consistency, in which the ingredients, animal or vegetable, are either mingled in a farinaceous basis (chiefly of flour) or are enclosed in a farinaceous 'crust', and cooked by boiling or steaming. Preparations of batter, milk and eggs, rice, sago, tapioca, and other farinaceous substances, suitably seasoned, and cooked by boiling, are now also called puddings' (NED).

The *half* of something is also a part of the whole, and may have important characteristics which are unconnected with its being just one half of the whole. The latter element may therefore disappear. The Cursor Mundi says *four halues o þis werld rond*, and Swift writes, *it broke into three halves*. It is not unusual to speak of *the larger half* (cf. K. O. Erdmann 187, Carnoy 105). Thus, even mathematical terms are subject to adequation.

To *enjoy* is 'to possess, use, or experience with delight', in a weaker sense 'to have the use or benefit of, have for one's lot (something which affords pleasure, or is of the nature of an advantage)'. The idea of possessing sometimes became predominant, and the meaning was generalized to 'have, possess', also something 'not pleasurable or advantageous'. ''Chiefly in expressions like *to enjoy poor health, to enjoy an indifferent reputation*, where the sb. has properly a favourable sense, qualified adversely by the adj. Cf. the similar use of *jouir de*, censured by Fr. grammarians'' (NED).

To *walk over* originally and literally signified 'to go over the course at a walking pace so as to be accounted the winner of a race in which there is no competition'. The important thing was not the walking, but the absence of competition and the consequent winning of the contest without an effort. The latter notion therefore became predominant, and we now use the expression about sole entrants in any kind of competition, even where a walk is entirely out of the question.

To *grow* has acquired the general meaning of 'to become', and it is now possible to speak of *growing small;* the verb has, however, also retained its original meaning 'to become larger'. To *turn* has had a similar development.[1])

Nyrop (IV 420) lists instances of this type under the much more comprehensive heading *Oubli du sens étymologique.* He quotes among other words, *journal*, originally a 'daily', derived from *jour* 'day'. The most important feature of a *journal* was not always its daily issue, but the fact that it was a publication of a certain type with regard to its contents. By adequation the word therefore came to signify such a periodical publication, whatever its time of issue, and we now have weekly, monthly, and quarterly *journals* or 'dailies'. (Further instances, see Nyrop l. c. and 434 sqq.).

Fr. *saupoudrer* is a derivative of *sal* 'salt' and originally means 'to sprinkle with salt'. In the course of time the feeling for the etymological meaning weakened, and the action of sprinkling became the predominant element. It is therefore now possible to say *saupoudrer un gâteau de sucre*, literally 'to salt a cake with sugar'.

K. O. Erdmann (183 sqq.) gives a great number of German instances of what he calls *widersinnige und zwecklose Wortverbindungen*, expressions which, with regard to their etymological meaning, are pleonastic, tautological, or catachrestic: *dekorativer Schmuck, numerische Anzahl, Einzelindividuen, Prüfungsexamen, alter Junggeselle, trockener Humor, nachgestellte Präpositionen*, and so on. Adequation of this kind occurs, as shown above, even in mathematical terms (*half*). Nyrop (Et avsn. af Ordenes Liv 42) adduces *behende Zunge* and *behende Füsse* as instances of the same kind. Carnoy (369) instances *reculer en arrière, monter en haut, descendre en bas, préparer, prévoir ou prévenir d'avance, un mirage décevant, une illusion trompeuse, répéter plus d'une fois.* In all these cases, the word has taken on a more general meaning, and requires a determination.

Fr. *adieu*, originally said to the party left, and English *goodbye* < *God be with you* (or *ye*), have both of them, through adequation, been turned into mere formulae of civility in which all remembrance of the original meaning is lost.

A group which in some respects is similar to the cognitive adequation of intensives, but which cannot be set in relation to any preceding change, is furnished by habitual phrases in which one or more of the component words loses its specific meaning, so that the phrase becomes a semantic unit. This is very often the case with phrases of verb plus noun, especially with common verbs, which then function practically like auxiliaries. Instances are afforded by *make* in *make allowance, make answer, make a bid, make boast, make a change, make a hash, make an entrance, make an error, make excuse, make haste, make a joke, make mention, make a move, make oath, make an offer, make a recovery, make a stand, make a start,* and others (see NED, *make* vb. 59). In some of these phrases, *make* seems to be scarcely more than a "verbal prefix", the semantic equivalent of an ending that would make the noun into a verb. *Make* is also combined with adverbs, with a similar effect on its meaning: *make off, make out, make away with,* and so on. It would be interesting to trace the development of these expressions, some of which are no doubt due to French originals. The process is evidently a series of adequations with subsequent transfers followed by new adequations. French *prendre* shows a similar development (Carnoy 233).

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[1]) *Whitewashed with blue* and *manned with girls*, quoted by Carnoy 105, are probably humorous formations, belonging to ch. 11, nomination.

14.83. *Specialization* (*The Pregnant Use*): *Appreciative.* The pregnant use is a specialization on one or more characteristics of the referent which are considered as typical and essential, and involves a valuation of the referent as such, as a pre-eminent specimen of its kind. It is emotive in nature and is not expressed by qualifiers (cf. Stern, Pregn. o. emf. betyd.).

The term pregnancy (*Prägnanz*) has generally been reserved for the appreciative type, but it seems to me that a laudatory *he is a man,* and a contemptuous *she is a woman,* must be explained in exactly the same way; *what a life!* may mean 'what a miserable life' or 'what a glorious life', according to the context, and the two interpretations cannot very well be separated. I shall first treat the appreciative type.

The spectators of *Hamlet* have learned that Prince Hamlet is deeply distressed by his father's death, and by his mother's hasty remarriage to his uncle. In a soliloquy he compares the two men: "*so excellent a king, that was, to this, Hyperion to a satyr*". In the subsequent conversation between Hamlet and Horatio, the latter says, "*I saw him once, he was a goodly king*", whereupon Hamlet exclaims: "*He was a man, take him for all in all, I shall not look upon his like again!*" The pregnant (and emphatic) *man* is a strong intensification of the praise contained in *a goodly king:* it is the sum of what we have heard before concerning Hamlet's feelings towards his father (cf. Stern, Pregn. o. emf. betyd. 248 sqq., with additional instances). The meaning of *man* is here specialized to denote especially the characteristics that are considered as essential and typical for a man, pre-eminent among men, and it consequently involves also a valuation of the referent.

I mentioned that *man* was also emphatic. Emphasis is a strong stress, sometimes also a specific intonation, with which we pronounce a word in order to give it prominence. It is often associated with pregnancy, but may occur without it. If we say, *he is a real man*, with a strong stress (emphatic stress) on *real*, the statement is, according to current terminology, emphatic, but it is not pregnant, in the above sense of that term, since the specialization (the valuation) is expressed by the word *real*. It is less easy to find an instance of pregnancy without emphasis. Possibly pregnancy is always accompanied by emphatic stress.1)

Emphatic stress is the natural way of giving prominence to individual words in ordinary speech. For the sake of greater effect it is often combined with pregnancy: a short, concise expression is, ceteris paribus, more effective than a long description. There is probably no causal connection between pregnancy and emphasis. It seems to be a case of cum hoc, sed non propter hoc. Both are caused by the speaker's desire for a concise and adequate expression, and for a stronger effect on the listener; the causes are, consequently, functional.

Bain (I 185) speaks of a figure "hitherto undesignated" being the use of "a name to express the meaning in a high or eminent degree": a person of *quality*, is a person of high quality, a man of *taste* is a man of refined taste; *he is a man*, means that he is a man of the best quality, or what the speaker regards as the best quality.

In the case of *he is a man*, the phrase has become habitual, so that a hearer knows immediately what is meant. We find, however, in

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1) Wellander (Studien II 27 sqq.) employs the term *Emphase* for what I have called pregnancy. I think it is better to keep the term emphasis for a strong stress (cf. NED s. v.). Wellander appears to consider *Emphase*, that is, pregnancy, as an almost inexplicable phenomenon — I do not quite see why. Cf. Stern, Pregn. o. emf. betyd., R. Pipping, Falk, Betydn. 90, Wundt II 579, Rozwadowski 44. — On the phonetic changes that may be caused by emphasis, see Sommer, GRM 8.

the instance from Hamlet and in many others, that when the pregnant expression is pronounced, the hearer has been prepared for it, and already knows the speaker's opinion of the referent. He has thus no difficulty in interpreting the words correctly.

Bøgholm (Bet. 124) quotes *that's the train for you*, and Johnson's remark about Chesterfield, *he never saw me eat*, which would seem inconsistent with the fact that Johnson had been Chesterfield's guest. But Johnson is employing the word *eat* in a pregnant sense, 'really eat', not merely toy with food. A pregnant meaning is sometimes indicated by the addition *and no mistake: the car was travelling, and no mistake.* Another type is the negative: *that is no playing, that is no leap, that is not cricket.*

Bain recurs to the type l. c. 205, in speaking of the identical assertion, as *what I have written, I have written.* The first clause "means simply the inscription as set up by Pilate; the second clause, "I *have* written", is intended to insinuate the further meaning, not necessarily conveyed, that the inscription is written finally, and is not to be amended or reconsidered. So *fact is fact, sensation is sensation, argument is argument*". Other instances belonging to pregnancy are *his coming was an event, he calls names, Richard's himself again, the way to do a thing is just to do it, an Hebrew of the Hebrews, there are histories and histories, a man's a man for a' that, no doubt but ye are the people* (the last is also ironical). Rignano quotes Berthelot as beginning an official report on the methods of preventing explosions of powder-magazines with the words: *an explosive is an explosive, it should be surrounded with constant precautions.* Which means: an explosive, that is to say this substance which has the essential property of exploding at the right moment, has also the capacity of exploding with facility, even when an explosion is not desired. The argument *a farthing is a farthing* then consists in drawing attention to a new attribute of the object referred to, and it does this by the repetition of the name (Rignano 216).

As a German instance, I may quote from Goethe's Tasso:

Wenn ich nicht sinnen oder dichten soll,
So ist das Leben mir kein Leben mehr,

where *das Leben* is a particular use of the word (= my life), and *kein Leben* is a pregnant use, 'no real life' (cf. Stern, l. c., Kreuger, Arch. 108, 107, Bergmann 31 sqq.).

14.84. *Specialization* (*The Pregnant Use*): *Depreciative.* Depreciative specialization is more exclusively emotive in character than the appreciative type, and is caused by the circumstance that the speaker apprehends one or more characteristics of the referent as disadvantageous, contemptible, or ridiculous. The subjective factor is thus predominant.

Lewd, OE. *læwed,* originally signified 'lay, not in holy orders, not clerical'. Since people not in holy orders, in the early Middle Ages, generally did not know how to read and write, *lewd,* by adequation to the characteristics of the referent, acquired the sense 'unlearned, unlettered, untaught': *alle lewede men þat understonden ne mahen latines ledene* (1225: 'all "lewd" men, who are not able to understand Latin'), and with further progression of the depreciative sense, 'ignorant, foolish, ill-bred, ill-mannered, base, worthless'. It is easy to conceive that in the mouths of clerical people, *he is lewd,* 'he is a layman', might imply 'he can not read or write, he is ignorant, he is no scholar, has no education', and so on. Such a depreciative implication must arise in the speech of people who are *not lewd,* and who, consequently are apt to speak contemptuously of those who are. It is natural that the practice of the former class should determine the development in the standard language (Schreuder 105 sqq.; cf. for the whole group Schreuder 65 sqq. with numerous instances).

Similar depreciations occur in the meaning of many other words denoting groups of human beings, one or more of whose characteristics is, or may be thought, contemptible or ridiculous from the point of view of some other group. Words denoting members of the servant class belong here, on account of a specialization on less favourable characteristics, or characteristics that are thought so by "their betters" A *menial* was at first 'one of the household', from F. *mainie,* Lat. type *mansionatam,* 'family, household'. Now only in contemptuous use, according to the NED, "applied chiefly to liveried men-servants kept for ostentation rather than use; often suggesting an imputation of pomposity or arrogance". Wyclif (1382) speaks of *meyneals of the kyng* without any disparaging implication. The shift may have taken place in connections like the following: *A pamper'd menial forc'd me from the door, To seek a shelter in an humbler shed* (1768), where the unfavourable qualities of the referent are especially suggested. *Flunkey, knave, lackey, varlet,* show a more or less similar development.

Another group that has had the misfortune to excite the contempt of would-be superiors are the country-people, the peasants. A *boor* is originally 'a peasant, a countryman', then 'a rustic, with lack of refinement implied, a country clown' > 'any rude, ill-bred fellow, a clown'. *Churl* and *carle* have had to submit to the same fate, just as French *vilain* (E. *villain*), the history of which is described in detail by Nyrop (IV 129) and Schreuder (71).

These are not the only classes in society that have been looked upon with critical eyes by their contemporaries. *Politician* is not seldom used in a sinister sense, 'a shrewd schemer, a crafty plotter, or intriguer'. It is not improbable that this development started in the adjective *politic*, used in a disparaging sense of 'scheming, crafty, cunning', but the difference in time for the earliest instances in the NED is insignificant, and the exact development can therefore not be ascertained.

When Napoleon called the English *a nation of shopkeepers* he certainly did not intend to emphasize the good qualities of such people. Contempt for the *bourgeois* has led to that word being used in an unfavourable sense in French (Nyrop IV 129, with additional instances); similarly *citizen* (Schreuder 74).

A *parson* is originally 'a holder of a parochial benefice in full possession of its rights and dues, a rector', but is generally extended to include a vicar or any beneficed clergyman. "In the more extended sense only colloquial, and (except in rural use) usually more or less depreciatory or dyslogistic" (NED): *Call a man Priest or Parson, and you set him in some Mens Esteem ten Degrees below his own Servant* (1666). There are many who look with derision or displeasure on clergymen (cf. Schreuder 114).

As often happens, other words belonging to the same sphere of experience have accompanied *parson* in its development. *Unction* is originally 'an anointing with oil as a religious act or symbol', and, further, 'a spiritual influence acting upon a person, deep spiritual feeling, or the manifestation of this in language or utterance; a manner suggestive of religious earnestness or appreciation of spiritual things'. In later use frequent in depreciative senses, implying that the feeling or manner is superficial or assumed, or is tinged with obvious self-complacency (NED): *That clerical unction which in a vulgar nature so easily degenerates into greasiness* (1870). It is not impossible that this development has been assisted by association with the related words, as *unctuous* 'of the nature or quality of an unguent or ointment; oily, greasy', and others.

Sanctified may be used in an unfavourable sense, as signifying 'affecting holiness, sanctimonious': *A sanctify'd Colonel in beaten buff* (1662), and *sanctimonious* has altogether lost its original good meaning, 'possessing sanctity', being now used only 'of pretended or assumed sanctity or piety, making a show of sanctity, affecting the appearance of sanctity': *Thou conclud'st like the Sanctimonious Pirat, that went to sea with the ten Commandments, but scrap'd one out of the Table* (1603). Similarly the noun *sanctimony*. *Saint* is sometimes used of 'a person making an outward profession of piety', according to the NED "ironically". That is an explanation which might be applicable also to other instances in the present paragraph, but it is very difficult to prove. It is easy to understand that words denoting a very high degree of religious fervour, as *devotee* and *zealot*, should be used in an unfavourable sense, implying fanaticism.

Words of general import sometimes depreciate in sense. *Fellow* is originally equivalent to 'homo, vir', and the unfavourable sense that not seldom adheres to it is probably due to the speaker considering the person thus addressed or denoted as belonging to the great and undistinguished mass — in contradistinction to himself as being in some way elevated above it (cf. Reinius 202, and 9; Schreuder 95)[1]).

Specialization is probably the cause of *beldam* 'a grandmother or great-grandmother' and also, generally, 'an aged woman, a matron of advanced years' acquiring the sense 'a loathsome old woman, a hag, a witch, a furious raging woman (without the notion of age), a virago'; *A beldame . . . accused for a witch* (1586. Cf. Schreuder 165).

Dunce is from *Duns*, the name of *John Duns Scotus*, also called *Doctor Subtilis*, who died in 1308. His scholastic system, which was for a long time predominant, "was attacked with ridicule, first by the humanists, and then by the reformers, as a farrago of needless entities, and useless distinctions. The *Dunsmen* or *Dunses*, on their side, railed against the 'new learning', and the name *Duns* or *Dunce*, already synonymous with 'cavilling sophist' or 'hair-splitter' soon passed into the sense of 'dull obstinate person impervious to the new learning', and of 'blockhead incapable of learning or scholarship''' (NED). The depreciative meaning is no doubt here, as in most other cases, due to those who considered themselves superior to the *Dunces*. The disrepute, however, of the Dunces was perhaps due to the progress in philosophy, and in so far it is a case of substitution (cf. 8.5 on *scholasticism*, and the development of *Jesuit*, illustrated by Schreuder 111).

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[1]) There is on the other hand nothing in the original meanings of *hussy* (< *housewife*), *quean* and *wench* that could be adduced to explain their depreciative development as belonging to the present type. It is probably to be ascribed to adequation of euphemism. Cf. French *fille*, G. *Dirne*, and other "modest" names for professional immodesty, and see Schreuder 172.

Substitution cannot be adduced to explain the deterioration in sense of *sapience*, which originally only meant 'wisdom, understanding', but is now rare in serious use, and occurs depreciatively or ironically as signifying 'would-be wisdom': *This is a piece of sapience not worth the brain of a fruit-trencher* (1642). The adjective *sapient* has undergone a similar development.

Cunning is used by Shakespeare both in a depreciative and an appreciative sense. Nowadays, the word is only depreciative, except in the Biblical phrase: *the hand had not forgot her cunning*. Similarly *artful* is now used only in a disparaging sense. Pope was able to write: *Her artful hands the radiant tresses tied* (cf. Bøgholm 111). In the same way we may explain the developments of *crafty, knowing, clever, cute, keen, sharp, smart, sly, shrewd,* all of them denoting a quality that is in itself blameless or even praiseworthy, but the intensification of which in the guarding of one's own interests will appear to others, whose interests suffer correspondingly, in an unfavourable light (cf. Schreuder 159 sqq.).

Conversely, people who are *not* smart enough, not sufficiently versed in the tricks and turns necessary to make one's way in life, will appear of inferior intelligence to others who are better equipped in this respect. The words *simple, innocent, guileless, unsophisticated,* have taken on an implication of 'more than simple, etc.', or at least more simple than the speaker thinks himself. Possibly adequation of euphemism has played a part here: there is not enough material in the NED to decide the question (cf. Schreuder 154).

Salvo 'a saving clause, a reservation' shifted to the unfavourable sense 'a dishonest mental reservation, a quibbling evasion, a consciously bad excuse', probably in connections where one party tried to evade his obligations, and therefore in advance, or subsequently, provided himself with loopholes, which were viewed with disfavour by the other party.

That which is imitated from an original is not seldom inferior in material, workmanship, and general quality, and the notion of inferiority easily attaches itself to the words *imitation, counterfeit, forgery,* and their congeners. In the last of these, the unfavourable sense is now the only one current. *Laboured* is used to denote that which is 'wrought, produced or accomplished with labour; highly elaborated, hence, in a depreciatory sense, performed or accomplished only by the expenditure of excessive toil or tedious elaboration, and consequently showing indications of heaviness or want of spontaneity': *There is not perhaps in the whole Eneid a more grand and laboured passage than the description of Vulcan's cavern in Etna* (1756), as compared with, *Other writing of a laboured and tedious kind* (1826).

Demure is used of persons and their speech, 'sober, grave, serious, reserved or composed in demeanour', which shifts to 'affectedly or constrainedly grave or decorous; serious, reserved or coy in a way that is not natural to the person or to one of his years or condition'. The earliest instance of the latter meaning is, *This Gentleman, and his demure Psalm-singing Fellows* (1693). The NED compares the development of *sad,* and Weekley (Words 101) refers to E. *staid,* L. *sedatus,* F. *rassis,* G. *gesetzt,* to which might be added Swed. *stadig* and *stadgad* (cf. Schreuder 153).

14.85. *Particularization. The Unique Use.* An adequation without previous sense-change may take the form of a particularization of meaning. This happens when a term of more general import is habitually used in a particular sense (cf. 4.23). Thus, *the King,* without any qualification, is for English speakers the King of England. Similarly, *the River,* to a Londoner, is the Thames, the *City* is the City of London.[1]) I shall call this the unique use of a word.

The unique use involves an adjustment of the meaning of the word, within the relevant group of speakers.— which may be equivalent to the whole speaking community — to the referent of which it is most frequently used. Not seldom this referent is the only one of its kind within the sphere of interest of the speakers, or is at least of predominant interest to them.

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[1]) When Londoners say *the Park* for Hyde Park, *the Row* for Rotten Row, *the Abbey* for Westminster Abbey, shortening may be suspected. It leads to exactly the same result as adequation. — Nyrop points out that the unique use is sometimes indicated by the use of capitals: *il se voua à l'Eglise:* the Church. (Nyrop IV 104).

We may distinguish two groups within the present type. The first group is represented by *the King*, *the River*, and other words which, in current use, retain their wider and earlier meanings. The second group is illustrated by words like *deer*, the wider meaning of which has disappeared from standard use. Its history presents some points of interest. In OE, *deer* generally denoted 'any fourfooted animal that was the object of chase', in contradistinction to tame animals and to birds. The subsequent development is a story in three chapters. The first phase of the process was a particularization in the speech of hunting people, who at this early period would comprise a considerable portion of the population. *Deer* came to be used, sensu eminentiore, of the Cervidae, red deer, roedeer, etc.[1]) The deer, in this sense, were the noblest game in England, and it is easy to understand that they were the 'animals of the chase' before all others.

When this state of development had been attained in OE, or at least in early ME, *deer* stood on the same stage as at present *King*, *River*, etc.: the general meaning and the particular meaning existed side by side, at least in the speech of one group. The second phase now set in. In its general application, *deer* was supplanted by the loan-words *beast* and *animal;* the general meaning of *deer* became obsolete. But in the speech of hunting people the word remained, in its particular sense — group dialects are often very conservative with regard to their technical terms. The third phase consists in the spread of the word, in the particular meaning, to the standard language.

This is, I believe, the most plausible way of explaining the "restriction of meaning" that has been so much discussed in semantic literature. We have another hunting word that has passed through a similar development: *hound*. It was particularized in the meaning 'a special kind of hound used for hunting'; in its general sense it was supplanted by *dog*. Finally, the particular sense spread to the standard language. (Cf. French *faon*, originally 'jeune animal' later 'jeune cerf'. Carnoy 135, Nyrop IV 167).

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[1]) The NED states that this sense is contextual only in OE, and places the following quotation from King Aelfred's Orosius within brackets: (*Ohthere*) *hæfde þa ʒyt ða he þone cyning sohte, tamra deora unbebohtra syx hund. Þa deor hi hataþ hranas* 'When O. came to see the king, he had six hundred tame "deer" of his own breeding. These "deer" they call reindeer'. It seems necessary here, in order to make sense, to translate *deor* 'Cervidae', not 'wild animals', but there is nothing in the context that can be said to serve as a determinant for the meaning of *deor;* so the new meaning seems to be established at this time, and should not be called contextual.

It seems necessary to assume the particularization or, more correctly, the habituation of the particular meaning, to take place in group speech, among people whose interests are directed quite especially to some one individual or species within the range of the word. But note that the group may be constituted by the whole community speaking one language.

With regard to the first type instanced above, and exemplified by *King*, *River*, it might be argued that there has been no sense-change at all, since even without particularization the words would be capable of denoting the King of England, or the Thames, as well as any other king, or any other river. A mere particular use (cf. 4.23) should not be regarded as a sense-change. It seems to be correct that the *referential range* of the word is not modified by the particularization, but I think we have to say that there is involved in it a modification of the *semantic* range, that is to say, of the subjective apprehension of the referent, *n. b.*, for the group of speakers in whose speech the unique use is current. For them the word may be said to have two meanings, at least when used with the definite article: 'king in general' as a common appellative noun; and 'the King of England', as a unique noun. The latter meaning falls, logically and in fact, within the referential range of the former. If we use the word without a determining qualification of any kind, as for instance, *do you know that the King is ill?* any English speaker or hearer will refer it, as a matter of course, to the King of England. Compare, *do you know that the president is ill?* which will leave an Englishman doubtful as to the president referred to, if the word is not contextually determined in any way. This difference must be a difference of meaning, and it compels us to recognize a sense-change for *king*, however we explain it.

It is, consequently, according to this theory, not the disappearance of the more general application of *deer*, *hound*, etc. that has caused the sense-change. The change was prior to the disappearance of the general meaning. The latter has of course affected the referential and semantic *ranges* of the words, but the range of a word is not its meaning. The meanings that have died out cannot be said to have changed. With regard to the meanings that have remained in use, I do not see that they have been affected in any way by the disappearance of the others. To assume that they have, would be to set up a doctrine that is attended with serious difficulties. We must remember that there is scarcely a word of any antiquity in the dictionary that has not in the course of development lost one or more earlier senses. Are we to assume that every such disappearance has had an influence of some kind on the remaining meanings? That is scarcely possible; yet, if we make that assumption with regard to one group, why should not the same thing be true of all? The origin of the erroneous opinion in these matters is probably to be sought in the confusion of range and meaning, especially "usual meaning", a confusion established in theory by Paul, and continued by other writers. I have shown above that the term *usuelle Bedeutung* covers several different things.[1])

The number of unique uses in group dialects is very large. I may mention as a typical instance the special senses connected with the Christian religion in *Saviour, Cross, Resurrection, Annunciation, Ascension, the Lord*, and a great number of other words. (Cf. Roget's Thesaurus nr. 976, Meillet, Ling. 244 sqq.,. Stöcklein 9, 63).

An instance of another type, showing how a word of general import can be particularized in various ways, is *undertaker*, literally 'one who undertakes to carry out work or business for another'. It is now mostly used in the sense of 'one who makes a business of carrying out the arrangements for funerals', instanced in the NED from 1698: *The furnishing of funerals by a small number of men called undertakers.* Possibly we should assume euphemistic motives to have contributed to this use, but the assumption is not necessary. The word was employed, at about the same period, in many other special senses: 'one who undertook to hold crown lands in Ireland in the 16th and 17th centuries', 'one of those who in the reigns of Jas. I, Chas. I, and Chas. II undertook to influence the action of Parliament, esp. with regard to the voting of supplies', 'one of those Lowland Scots who attempted to colonize the Island of Lewis towards the end of the 16th century', 'a book-publisher', 'a producer of an opera or play', 'a manager, impresario', 'a baptismal sponsor', and a number of other meanings, for which I refer to the NED. All these seem to appear about the same time. The word was then evidently felt to be adaptable to various uses. Of these practically only one has survived.1)

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[1]) Instances of the present type are classed by Wundt (II 583) as *Begriffsverdichtungen durch Verwendungsassoziationen*, and the shift is attributed to "die inneren Assoziationswirkungen, die aus der Beziehung der Wortbedeutung selbst zu ihren regelmässigen oder häufigsten Anwendungen entspringen" (l. c. 579) The analysis agrees with mine, but Wundt's term *Verdichtung* must be rejected as implying an erroneous view of the result. It is curious that Wundt, who had clearly perceived that most regular sense-changes were to be explained by his theory of "verschiedene Merkmale", of which sometimes one, sometimes another could attract attention, did not also see that *Verdichtung* is fundamentally of the same nature.

Wundt counts in his group some instances which I prefer to class elsewhere. He considers the technical meanings of *Druck, Band, Stich* as due to *Verdichtung*. I am not sure that this is correct; it is equally possible to explain them as substitutions. The production of printed sheets was done by 'pressing': *drücken;* it *was* really a pressing of the sheets of paper in the machine, and the act was naturally so called. Similarly the *binding* of a book is really a binding together of the separate sheets that go to make it up. It is true that this substitution, as all others, is followed by adequation, but that is not what Wundt is referring to (cf. ch. 8).

The word *corn*, in England, denotes the seed of all the cereals, wheat, rye, barley, oats, maize, rice, etc. The American sense 'maize' is probably a shortening of *Indian corn* (10.421). But it seems probable that the Swedish sense of 'barley', and the dialectal German sense of 'rye' are unique uses, these cereals being the most important ones for members of the respective speaking communities.

The use of so-called occupative surnames (see Weekley, Names 143 sqq.) may possibly at first have been due to a unique use of the names among the friends and neighbours of the man called, for instance, *Smith, Taylor, Wright, Walker, Turner, Clark, Cooper*, etc. We find these names in early records with a preceding christian name, but already in Middle English they had in many cases changed into surnames, so that it was possible to write *Walter Ussher, tanner; John Botoner, girdler; Roger Carpenter, pepperer; Richard le Hunte, chaundeler*, and so on (from 1336—1352, Weekley l. c., French instances, see Nyrop IV 359).

Nyrop (IV 159 sqq.) gives a number of instances of "restriction de sens", many of which seem to belong to the present type. "Aujourd'

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1) Greenough & K. 253 explain *undertaker* in its modern sense as a shortening of *funeral undertaker*. There is no indication of a shortening in the instances in the NED, and the theory seems to be disproved by the great number of other particularized meanings appearing during the same period, none of which show signs of being shortenings.

hui *l'Empereur*, c'est Napoléon Ier; au grand siècle c'était l'empereur d'Allemagne qui était alors l'empereur par excellence" (l. c. 160). German instances are given by Stöcklein 9; some of the instances of shortening adduced by Wellander, Studien II 18—19 (*Abendmahl, die Schrift, besessen*) seem to me to be particularizations.

I am doubtful whether the differentiated use of the so-called *voces mediae* is to be classed here, or as pregnant use, or as permutation, or possibly some of them here and some in class VI. (Cf. Schreuder 167 sqq.).

Manners 'external behaviour in social intercourse, estimated as good or bad according to its degree of politeness or of conformity to the accepted standard of propriety', shifted to 'polite behaviour or deportment, habits indicative of good breeding'. Chaucer writes: *Compleyneth her that euere hath had yow dere, Compleyneth beaute, fredom and manere.*

Humour was borrowed from French at a time when it meant 'disposition'. In French, the development is depreciative, *humeur* generally meaning 'peevish temper' (Nyrop IV 152). In English, the word has moved in another direction.

Temper is originally 'due or proportionate mixture or combination of elements or quantities' > 'mental balance or composure' > 'habitual disposition, frame of mind', especially *ill-temper, bad temper*. But the word is constantly used in both a favourable and an unfavourable sense, as shown by the following: *Patricia was stimulated to temper. "Nobody could ever love you", she cried angrily* (Swinnerton, The Three Lovers 328), and, *Patricia lay back in her corner recovering her temper and her composure* (l. c. 329). In the first quotation, *temper* means 'bad temper', but a few lines further on it means 'good temper'. This shifting is conditioned by the context, which clearly shows the intended meaning, and it is unnecessary to assume shortening (omission of qualifier); it is a particularization.

We have similar developments in verbs: *behave yourself*, always means 'behave well'. (Further instances in Bøgholm 124, Carnoy 151 sqq., Nyrop IV 144 sqq.).

When L. *valetudo* 'state of health' takes on the sense 'sickness', it seems to be due to its employment in phrases like *causa valetudinis* 'for the sake of his health', which, in a majority of cases, would mean 'owing to ill-health'. Is this a permutation or an adequation? A thorough investigation of the history of such words is necessary in order to answer the question.

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[1]) I have unfortunately not been able to verify my quotations from Moore's Monograph, which are made from notes taken five or six years ago.

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